

WRITING AND POWER IN THE ROMAN WORLD

In this book, Hella Eckardt offers new insights into literacy in the Roman world by examining the tools that enabled writing, such as inkwells, styli, and tablets. Literacy was an important skill in the ancient world, and power could be, and often was, exercised through texts. Eckardt explores how writing equipment shaped practices such as posture and handwriting, and her contextual analysis of burial data shows interesting age, gender and status patterns, with considerable numbers of women and children interred with writing equipment. The volume offers a comprehensive review of recent approaches to literacy during Roman antiquity and adds a distinctive material turn to our understanding of this crucial skill and the embodied practices of its use. At the heart of this study lies the nature of the relationship between the material culture of writing and socio-cultural identities in the Roman period.

Hella Eckardt teaches provincial Roman archaeology and material culture studies at the University of Reading. Her research focuses on theoretical approaches to the material culture of the north-western provinces and on questions of mobility and migration. She is particularly interested in the relationship between the use of Roman objects and the expression of social and cultural identities. She has published on lighting equipment in *Illuminating Roman Britain* (2002), objects associated with grooming and personal adornment in *Styling the Body in Late Iron Age and Roman Britain: A Contextual Approach to Toilet Instruments* (2008) and material culture from Britain generally in *Objects and Identity: Roman Britain and the North-Western Provinces* (2015).

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WRITING AND POWER IN THE ROMAN WORLD

LITERACIES AND MATERIAL CULTURE

HELLA ECKARDT

University of Reading



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PART I

UNDERSTANDING LITERACIES, MATERIAL CULTURE AND PRACTICE IN THE ROMAN WORLD

ONE

INTRODUCTION: LITERACIES, POWER AND IDENTITIES

Writing is language made material.

(Haas 1996, 3)

There is no single definition of literacy, as the term can encompass the ability to read and write as well as degrees of cultural refinement (e.g. Bagnall 2011, 2; Franklin 2002, 2–5; McKitterick 1990, 2; Small 1997, xv; Thomas 1992, 1–11). Literacy is also often taken to relate to levels of competence and learning. In Roman times, literate activities may have ranged from an ability to sign a document or read an inscription to skilled composition. Today, literacy is often seen as a measure of integration into society, defining both the successful child and the employable adult (e.g. O’Keefe 1990, 10). In many ancient societies professional scribes existed, and individuals were frequently operating in a multilingual environment. Literacy affects all members of a society, including those that cannot read, and obviously has a close and complex relationship with orality. Reading and writing are often seen as one of the defining characteristics of western culture, and consequently there is a long and rich tradition of research on literacy. However, it is important to realise that the grapho-centrism of our society may blind us to differences in the past (Bowman and Woolf 1994, 1). This chapter aims to give a flavour of previous work on the topic, with a particular emphasis on scholars concerned with the Roman world. Researching this book made me once more aware of the need for dialogue between archaeologists, classicists, papyrologists and palaeographers

(cf. Moreland 2006). I hope I am able to offer at least a glimpse into the important research of those who deal primarily with texts, while adding a material turn to the topic. To this end, in what follows I am especially interested in research on the *practice* and *materiality* of writing. At the heart of this book lies the nature of the relationship between the material nature of the ‘information technology’ of writing and sociocultural change in the Roman period.

This book offers a consideration of the role writing played in Roman society through the medium of material culture, focusing on one particular, previously completely neglected object – the metal inkwell. Inkwells are relatively small vessels, made from a range of materials, notably Samian pottery, glass and copper-alloy. Their social and cultural significance lies in the association with writing and literacy, but as this book will show, metal inkwells in particular also offer significant insights into elite behaviour and patterns of consumption. While metal inkwells have long been published as individual finds, overview discussions so far have been limited to brief summaries (Božič and Feugère 2004; Fünfschilling 2012) and analysis of the material from a single province or site (e.g. Bilkei 1980; Koster 1997, 2013; Öllerer 1998). This book instead examines metal inkwells as a category from across the Roman Empire, exploring not just their forms, chronology and distribution, and social and economic meanings but also the embodied practice of their use.

APPROACHES TO ANCIENT LITERACIES

From the 1960s onwards, a number of social scientists began to explore the impact and long-term effects of writing on the organisation of societies. Perhaps most prominent amongst these is Goody, who wrote about the ways in which ‘literate technologies’ affect the very structure of society. Goody (1968) considers writing not simplistically as the single cause of change, but sees cognitive, social and economic changes as one of the consequences or implications of this new form of communication. The profound change in modes of thought caused by new means of communication is argued to be a more useful way of thinking about different types of societies than dividing them into ‘primitive’ and ‘advanced’ (Goody 1977, 1986, 2000).

In reaction to the initial focus on literacy, research then began to focus on the relationship between orality and literacy. The term was coined to avoid describing societies simply in terms of an absence of literacy (i.e. as illiterate). The vast majority of languages exist only in oral form, and orality is argued to necessitate specific modes of thought and expression, with a particular emphasis on the role of memory (Ong 1982, 1986). But just as Goody and others were in danger of overemphasising the role of writing, and in particular alphabetic writing, in the development of rational thought and even democracy, there is a danger that oral societies are idealised and assumed to

all have certain mentalities. More subtle approaches have instead stressed the fact that orality and literacy are not mutually exclusive, as elements of oral culture persist well beyond the introduction of writing, be that in the form of dictation and reading aloud in many ancient societies or the ‘secondary orality’ of radio and TV today (Olson and Torrance 1991; Thomas 1992). Recent work in the Roman world emphasises competence in sign use and links with numeracy rather than a rigid focus on the tension between orality and literacy (Woolf 2015).

While Goody and others were crucial in highlighting the importance of literacy and its implications, their work has been accused of technological determinism (Street 1984, 44–65). This ‘autonomous model’ sees writing as a technology with consequences (including cognitive changes) that develop almost independently of the social setting; it can be contrasted with Street’s ‘ideological model’, which views writing very much as the product of social and cultural practices within particular settings and power structures (cf. Franklin 2002, 2–9; Street 1984, 95–125). In a reaction to the initial emphasis that saw societal change very much as a consequence of literacy, more recent research has therefore focused on the *context* of *literacies* and on literacy as a set of social practices. There is now a much greater concern with the changing literate practices of a particular society and a growing awareness of the varied ways in which writing can be used in different societies (e.g. Keller-Cohen 1994; Schausboe and Larsen 1989).

It is worth noting, for example, not just the enormous variety of materials employed but also the increasing recognition that the development of writing occurred not just in response to the bureaucratic needs of emerging complex states but especially in China and Mesoamerica also had religious, symbolic and magical functions (e.g. Fischer 2001; Gaur 1984; Harris 1986; Senner 1989; Woods 2010). The same has been argued for early Greek literacy, and indeed the beginnings of Latin (e.g. Lomas 2007a; Thomas 1992). Letters and the act of writing itself can have magical significance even for illiterates, as evidenced, for example, by Danish folklore (Holbek 1989). As an aside, it is interesting to note that no Roman deity is associated and depicted with writing equipment, in contrast to, for example, the Egyptian goddess of writing and wisdom Seshat. On an Egyptianising lamp of the first century AD she is depicted with an inkwell dangling from her left wrist and holding what may be a pen in her right hand (Bailey 1980, 211; Donadoni 1997, 67; brought to my attention by Nina Crummy).

While Goody was interested in literacy as a facilitating technology, these more nuanced approaches are concerned with literacy as something that ‘was used as a tool for creating and maintaining elite social status and domination, and for representing cultural identities of communities or individual groups within them’ (Lomas 2007a, 12). In contrast to those that view literacy as

a technology for advancement and empowerment, literacy and in particular schooling can be seen as enabling a form of hegemony and control; for example, a classic analysis of nineteenth-century statistical data from Canada shows that literacy made little difference to occupation and wealth while ethnicity and class origin did (Graff 1979). A similar case has been made for the south-eastern United States (Heath 1983). In this way several authors have developed more nuanced understandings of the relationship between writing and power, rather than seeing writing simply as a technology of enlightenment and progress. For example, Gaur (2000) sees writing as an element of the infrastructure that can develop or maintain dominant positions within a given society or be used to aid the spread of empires and religions. Others have considered not just power relations expressed through writing but the cultural values and communicative strategies of specific societies (e.g. Houston 2004; Keller-Cohen 1994). A focus on power and identity in colonial and post-colonial contexts is viewed as a way of challenging both the lasting impact of the autonomous model on policy making and the particularising and relativist tendencies of the ideological model (Collins and Blot 2003). While most publications are concerned with the invention of writing systems and their impact, recently the disappearance and replacement of scripts has also been considered (Baines et al. 2008).

One period for which the specific historical context of writing has been explored in depth, and one from which useful parallels with the Roman world can be drawn, is the medieval period. There are of course clear differences between Roman and medieval literacy, notably in the religious framework, but there are also similarities in practice such as the importance of dictation and reading aloud, and in concepts of learning and erudition. While materials varied, with the use of colour, gold and parchment setting medieval books apart in terms of monetary value, in both the Roman and medieval periods books were socially and culturally highly valued, and used for gift giving and exchange between high-status individuals (McKitterick 1989, 135–164). The debates between medievalists about when the step change in literacy levels occurred (e.g. Clanchy 1993; Stock 1983 vs. McKitterick 1989) are not relevant to this discussion, but there are several general concepts that provide interesting comparisons for the Roman world. One is the idea of *literate ways of thinking* or a *literate mentality*, which Clanchy (1993) argues was gradually introduced even to serfs in the period between 1066 and 1307, based on the increased use of records, charters and other documents. This shift from memory and collective oral testimony to trusting written documents was not automatic, with good reason, given the number of forged charters created during this period. Rather, there was a mix of oral and literate modes, and written forms were adapted to oral practice (cf. Stock 1983, who sees this change as occurring slightly later). Societies such as those of the early medieval period have also

been characterised as possessing ‘transitional literacy’, which is not related to the number of literate people, but to the changing decoding strategies and visual conventions employed by a given society (O’Keefe 1990).

Another interesting model is that of *textual communities*, a phrase coined originally for heretical and reformist groups where ‘texts play a dominant role in the internal and external relationships of the members’ (Stock 1983, 90). Texts can be read aloud and shape discourse within textual communities, influencing not only those who can read for themselves but also illiterates. Some scholars have distinguished between scribal and lay literacy to highlight the fact that even non- or semi-literate individuals need certain competencies and knowledge to participate in literate societies (Illich 1991; cf. Rees Jones 2003).

What I find striking when reading the academic discourse on medieval literacy is that there can be a lack of engagement with the physical practice of writing and the actual writing equipment, perhaps as a consequence of the wealth of textual data. Thus, in a book of 345 pages, only 12 pages and no illustrations are devoted to writing materials (Clanchy 1993, 114–125). A laudable and inspiring exception is Willemsen (2008), who examined the education system in the Netherlands and north-western Europe generally between 1300 and 1600. She focused not just on written and iconographic sources but deliberately studied the material culture associated with writing and objects excavated from known schools (Willemsen 2008, 53–87; cf. De Hamel 1992, 29–32). There is also now a catalogue of northern European medieval writing equipment, including styli, book fittings and even glasses (Krüger 2002).

A lack of engagement with the *material practice* of writing in general is now beginning to be addressed in literacy studies. This can take the form of agency theory, exploring the interplay between social structure, individual action and material world, as in a recent study with a particular focus on Mesopotamian and Mayan writing (Englehardt and Nakassis 2013; cf. Scribner and Cole 1981). In my view, more successful is a recent edited volume that examines writing as a form of material culture and the contexts of its production and consumption (Piquette and Whitehouse 2013; cf. Whitehouse 2013b). Archaeological case studies illustrate the ways in which particular materials or tools may influence the act and detailed execution of writing (e.g. Kidd 2013 and Johnston 2013) and trace sequences of technical action such as drafting and erasure (e.g. Piquette 2013). New imaging techniques help us better to understand details of the material and of the writer’s practice (Figure 1.1). There are also discussions of the bodily actions and sensory perception of both producers and users, ranging from the different materials used to write in Greek and demotic¹ (Kidd 2013) to the physical experience of reading inscriptions that

¹ Egyptian script.



1.1. The materiality of writing: lead curse tablet from Uley with RTI (Reflectance Transformation Imaging) visualisation to show surface details and writer's ductus (Photograph and RTI detail by kind permission of Kathryn E. Piquette, Courtesy Roger Tomlin and Trustees of the British Museum).

literally twist around stone monuments (Whitehouse 2013a). A deliberately material perspective focusing on writing equipment and how it was used was also recently employed to examine the scribes of Ancient Egypt (Pinarello 2015). While the wide range of materials used for early writing has of course long been noted (e.g. Daniels and Bright 1996; Gaur 1984), recent work on, for example, cuneiform writing deliberately looks beyond the signs to examine the colour, shape and surface format of clay tablets and the shape and use of styli in order to understand scribal practice holistically (Taylor 2011). Similar research has been conducted on the materials used by prolific nineteenth-century letter writers (Hall 2000).

Along similar lines, a recent edited volume explores the material aspects of magic, and in particular the ingenious ways in which writing and text can be used to protect or harm. Examples range from textual amulets in ancient Egypt and Greek and Roman 'voodoo dolls' bearing the names of those cursed to inscribed rings and amulets (Boschung and Bremmer 2015).

Writing has also been viewed as a technique and a technology, and its impact has been compared to other step changes in information technology, such as printing and electronic media (e.g. Eisenstein 1979; Hobart and Schiffman 1998). However, it is crucial to avoid a deterministic and instrumental view of technology, and instead consider how writing technologies such as computers do not merely assist but shape human thought (Haas 1996; Norman 1993). There is a symbiotic relationship between the tools and the cognitive activity, but it is often only possibly to really 'see' writing technology at points of change, as otherwise its use is so habitual as to go unchallenged. We will

explore these ideas in much more detail for the Roman period by considering exactly how inkwells and associated writing materials were used and how the actions of the writers may have been shaped by the physical features of these objects (see Chapter 3).

LITERACIES IN THE ROMAN WORLD

Literacy is one of the defining elements of Roman culture; the ability to read and write was important not just to the elite through ideological concepts such as *paideia* and *humanitas* but also to commerce and to the military and administrative machinery of Empire. Owning books represented a substantial investment in the Roman world; for example, it has been calculated that a copy of the Aeneid cost the equivalent of 160 litres of wine (McKitterick 1989, 137). Clearly the workings of the state and economy relied on literate individuals. The work seen by many as kick-starting the modern interest in the topic was Harris's (1989) *Ancient Literacy*; his Roman section in particular was primarily concerned with levels of literacy, but also addressed the various uses of literacy and differences across the social and class spectrum and across the various parts of the Empire. Here and in subsequent work, for example when discussing inscriptions on *instrumentum domesticum*, he stressed the limitations on widespread literacy that existed in the ancient world (Harris 1995). There were some responses to the relatively low estimate (5–10 per cent) of literacy levels made by Harris (1989, 175–284; e.g. papers in Humphrey 1991; also Bagnall 2011; Corbier 2006, 77–90; Laes and Strubbe 2014, 99), but it is now accepted that although the Roman Empire was 'awash with documents', relatively few individuals 'possessed that broad set of skills in creating and using texts that today we term full literacy' (Woolf 2009, 46).

The debate in general has moved on to wider questions about the role of literacy in Roman society (e.g. Bagnall 2011; Bowman and Woolf 1994; Corbier 2006; Cooley 2002; Harris 1989; Humphrey 1991; Pearce 2004; Tomlin 2011; Woolf 1996, 2000, 2009). These have included the interplay between orality and literacy and the concept of a literate mentality as well as the role of memory (e.g. Draper 2004; Habinek 2009; McKay 2008; Small 1997; Watson 2001). In a society shaped by oral discourse and public speech and yet permeated by the power and importance of documents, lines between literacy and illiteracy were blurred. Clearly, it was possible to exploit the reading abilities of a small group to communicate information orally to many others, whether dealing with inscriptions or written documents such as ownership records or private letters (Bowman 1991; Hanson 1991; Raybould 1999, 1; Stauner 2004, 195). Similarly, dictation and the use of literate individuals as scribes enabled those who could not write themselves to participate in official and legal as

well as personal communications. Literacy has also been viewed as a communication technology, which was revolutionised in scale and speed from the Augustan period onwards, with a profound impact on society and economy (Haynes 2002).

Other factors to consider are the ways in which reading and writing intersected with spoken languages in different parts of the Empire. For the provinces the adoption of Latin can be viewed positively in terms of linguistic and cultural-political unification or negatively in terms of subjugation and the gradual loss of native languages (Cooley 2002, 9–10). Recent research on multilingualism has highlighted the complex and dynamic ways in which languages and identities interact and develop in the fluid contact zones created by the Empire and introduced the concept of code-switching rather than creolisation or hybridisation (e.g. Adams 2003; Harris 1989, 259–282; Mullen 2013a, 2013b, 2016; Mullen and James 2012; Wallace-Hadrill 2008; Woolf 1994). Some authors have drawn attention to the link between literacy and numeracy, and it has been suggested that a high frequency of age rounding, usually to multiples of five, in inscriptions may indicate an ignorance of age and possibly also innumeracy, which was in turn linked to illiteracy (Duncan-Jones 1977; cf. Churchin 1995, 471–473; Hanson 1991, 183–187).

Interesting footnotes to the discussion about literacy are attempts to expand the term's usage beyond the skills of reading and writing, such as in the now extensive literature on emotional literacy, especially within an educational and therapeutic context (e.g. Antidote 2003; Spendlove 2008), and in the concept of cultural literacy. The latter was developed by Hirsch (1987), who argues that a shared understanding of cultural concepts and histories is far more important than the mechanical skill of reading; his list of 'knowledge that every American should know' has been influential in conservative education policy in the United States and the United Kingdom. In a Roman context, cultural literacy could be achieved through what has been termed 'visual literacy', i.e. the ability to interpret and decode the complex iconography of the Roman world (Ferris 2012, 25–29; Franklin 2002, 229–254; Hodos 2010, 19–23).

Clearly, literacy is 'not a single phenomenon, but a highly variable package of skills in using texts' (Bowman and Woolf 1994, 2); for the Roman period it therefore seems apt to talk of *literacies* and to prioritise the particular significance of literate activities within specific historical contexts and in particular locales. This is not the place to evaluate the vast literature on the subject (but see Werner 2009 for a convenient recent summary); instead I will briefly consider two themes that are especially relevant to this book, namely power and identities and the concept of *practice*. Both of these have the potential to transcend the divide between grand theory and case study (Bowman and Woolf 1994, 4).

Power

In the classic original study of the topic, Bowman and Woolf (1994, 6) suggest that literacy relates to power, both in terms of ‘power over texts and power exercised by means of their use’. Texts are closely related to power in social, political, economic and religious contexts; power over texts can, for example, be exercised by restricting access to them while power through texts relates to, for example, laws, census lists and history (Bowman and Woolf 1994, 6–10). Literacy has thus been viewed as an instrument of institutional control and cultural cohesiveness (Bowman 1994, 111; cf. Cooley 2002). Moreland (2006) has also argued for writing as a technology of power, with both oppressive and transformative potential.

Classic case studies concern the meaning and power of inscriptions, which shaped and influenced the lives of even those who could not themselves read them; this monumental use of writing made particular identities, such as those of the military or of freedmen, visible and helped express relationships between the state and its citizens (e.g. Häussler and Pearce 2007; Keegan 2014a; Pearce 2004, 44; Woolf 1996). Inscriptions could have complicated biographies, including erasure, re-use and incorporation into new structures, reflecting their changing contexts and powers (e.g. Cooley 2000). Recently, Sears et al. (2015) have explored the relationship between both inscriptions and graffiti and movement through the Roman city. Graffiti in particular have seen much recent innovative study, as they offer interesting insights into the practice of writing within urban and private space (e.g. Baird and Taylor 2011). Graffiti can also be taken as an insight into ‘working-class’ literacy as many appear to be written by people of modest social standing. Mouritsen (2015) shows that for Pompeii many writers may have been slaves and freedmen in elite households, where some schooling may have been provided to enable commercial and domestic activities; this is supported by analysis of the names represented.

While much of the research on literacy has focused on the importance of public inscriptions or early record-keeping systems, writing was also a powerful tool when applied to the ephemeral medium of letters. Letters were used for three sets of relationships that were central to Roman culture: client-patron relationships, friendships (*amicitia*) and household relationships (Richards 2004, 13–46; Stowers 1986, 27–31). Both the papyri of Egypt and the Vindolanda tablets demonstrate the many ways in which a letter could be used to ask for patronage; honour, scold or console someone; or request provisions or give orders (Bowman 1994, 123; cf. Pearce 2013, 138). The very act of writing could also have magical-ritual powers, as could the written word through, for example, liturgies or calendars (Beard 1991; Gordon and Marco Simón 2010; Moreland 2006, 142; Pearce 2013, 138; cf. Goody 1968, 11–20).

Writing enabled a form of domination to be imposed and sustained even on illiterate individuals (Pearce 2004, 44; cf. Draper 2004), but the time is perhaps ripe to reconsider the empowering qualities of the ability to read and write. It is important to remember that individuals and groups could use these skills to pursue their own agendas (Cooley 2002, 13; Woolf 1994, 89). In other words, we may ask what writing was for and what it did in the societies that made up the Roman Empire. A central thesis of this book is that literacy, or perhaps more accurately learning, was a symbol and representation of status, displayed both on wall paintings and on funerary monuments (e.g. Ambs and Faber 1998, 462–463; see also Chapter 8) and through writing equipment itself, especially in a funerary context. It has been argued that ‘finds from a funerary context need not necessarily be linked to an individual’s capacity to read and write. Potentially they acted as a status symbol to evoke the acquisition of Roman culture comparable to bathing equipment’ (Häussler and Pearce 2007, 230). However, presumably anyone buried with bathing equipment had at least a vague idea of Roman bathing, and I would argue the same for writing equipment. At the very least there is an aspiration on the part of the deceased or the mourners to display a literate mentality. We will see throughout the book that there are of course nuances; thus scribes were considered as ‘low status’ by the very elite of the City of Rome but this is not to say they, as a group or as individuals, were not proud of their status in their *self-representations* relative to the rest of the population (see Chapter 11). I have argued elsewhere that there were subtle but important differences in how writing equipment was used (Eckardt 2014, 177–207). For example, in Britain and other provinces, objects such as Minerva wax spatula handles and highly decorated metal inkwells are a form of elite display, and we will explore this in detail (see Chapters 2 and 8).

Practice

The literature on the practices of literacy can conveniently be divided into studies concerned with reading and those concerned with writing (cf. Werner 2009, 336); the latter are obviously more central to this book and writing practices are considered in detail in Chapter 3. This section therefore considers the practices of reading in the Roman world only.

Much research on reading is concerned with the debate about whether the Romans read silently or aloud, about how people learned to read and about the mechanics of reading *scriptio continua* (writing in continuous letters that leaves no space between words and with relatively little punctuation), which appears extremely difficult to the modern eye (e.g. Burnyeat 1997; Gavrillov 1997; Kenyon 1951; Valette-Cagnac 1997). This form of writing provided little paralinguistic information and, therefore, placed more responsibility for interpretation on the reader (Johnson 2012, 25; cf. Small 1997, 14–25). This could be

a *lector*, usually a slave, who may read drafts to authors or texts to dinner guests or for the private enjoyment of the owner (Starr 1991). However, reading with understanding was also closely linked to the skill of oratory and central to elite education and identity. In this sense, reading is not simply a cognitive process, but reading events and reading communities are closely linked to elite identities in early imperial Rome (Johnson 2000, 2012). The *reading culture* of this period forms a sociocultural context in which often very difficult texts are employed as a form of self-validation, through learned aesthetic and social responses to the event of reading. While others have also seen this shared literary culture as an expression of a unified political elite (e.g. Hopkins 1991, 143), it is important to realise that it also represents a ‘culture of exclusion’ that is not based on the actual skill of reading and writing but on the ability to compose and appreciate very specific forms of text (Woolf 2000, 889–890). Education in a very narrow canon of core texts and this particular elite cultural literacy thus functioned as a caste marker, especially in the later Roman period (Heather 1994, 183; Kaster 1988).

We will review the nature of Roman education in detail in Chapter 10, but it should be noted here that teachers, even at the higher level of grammarians and rhetoricians, had an ambiguous status. While they mixed with the elite and their profession offered significant opportunities for upward social mobility, ultimately, because teachers were paid, they always remained excluded from truly elite status (Kaster 1988; Riess 2001 cf. Christes 1979).

How did people obtain and access literary reading material? Texts were distributed initially through networks of the authors’ friends, first for comment and criticism and then shared amongst them; in this elite context, books moved by gift exchange rather than commercial transactions (Cavallo 1975; Dortmund 2001; Johnson 2012, 181–185; Starr 1987). The concept of publication differed fundamentally from modern ideas; for example, there was no concept of royalties to authors for further copies made and little possibility of controlling the accuracy of copies (Dortmund 2001; Small 1997, 26–40). Books could be obtained in book shops, many of which were concentrated in the very centre of Rome (White 2009, 271–272, fig. 11.1; cf. Kleeberg 1969; Small 1997, 41–52; Starr 1987, 219–223). Reading material was also available in private and public libraries. The most famous of the former is the Villa of Papyri preserved in Herculaneum (Houston 2014, 87–129; Sider 2005) while there have been numerous discussions of public libraries (e.g. Blanck 1997; Casson 2001; König et al. 2013). These have not just examined the location and architectural form of public libraries but also asked broader questions about the ways in which information could be retrieved and knowledge organised, transmitted and controlled. In contrast to modern libraries, which promote public access and education, Roman public libraries from the end of the Republic onwards are interpreted as part of the opening up of aristocratic culture to display the

status of their founders. This discussion of reading has focused very much on longer literary texts (as it is those that were most intensively studied by classicists and historians) but of course it is important to remember that much more casual and widespread reading of everything from pottery stamps to graffiti and inscriptions also took place (e.g. Baird and Taylor 2011; Feugère and Lambert 2004).

UNDERSTANDING MATERIAL CULTURE AND IDENTITIES

This book explores the relationship between the material culture of literacy and ancient identities. I am well aware of recent debates about the usefulness of the term ‘identity’, which has been justly critiqued in recent years. The term is in danger of becoming a catch-all and too ambiguous to be of genuine analytical relevance (Brubaker and Cooper 2000). There is clearly an inherent conflict between essentialist understandings of identity that stress the sameness of a group and the power of identity politics and constructivist arguments highlighting the fluid and constructed nature of identities. Concerns have been raised about the application of western concepts of identity to the past, as we cannot assume that what we may consider natural is indeed fundamental in all societies (e.g. Meskell 2001). Influenced by contemporary experience, there may be a temptation to ignore the constraints of biology and power, and the force of ascribed identities such as caste or slavery. Another key argument in much of the recent work on archaeologies of identity is the importance of moving beyond single issue studies (e.g. ethnicity) or those that focus on binary classifications to more holistic and nuanced studies that account for the multiple identities of groups and individuals (e.g. Casella and Fowler 2004; Díaz-Andreu and Lucy 2005; Insoll 2007). Life course approaches provide one useful model for how such complex identities that are subject to change through time can be analysed (Harlow and Laurence 2002, 2007; Parkin 2014; cf. Gilchrist 2012; see Chapters 9–10). The importance of recognising multiple aspects such as ethnicity, gender, age, sexuality, class or caste, ideology and religion has been recognised in Roman archaeology (e.g. Hill 2001) and the study of local, complex and plural identities lies at the heart of much recent work (e.g. Dench 2005; Ferris 2012; Gardner 2011, 2007; Hodos 2010; Mattingly 2004, 2011; Revell 2009; cf. Eckardt 2014, 4–7). However, Pitts (2007) has argued that, in many cases, studies of identity in Roman archaeology have effectively become a continuation of the ‘Romanisation’ debate, with studies focusing too heavily on cultural identity.

The relationship between material culture and identities is crucial to all these arguments, and rather than simply reading objects as a direct reflection of a particular identity, it has long been recognised that material culture can have multiple, potentially contradictory meanings depending on its context.

While theoretically satisfying, this poses significant difficulties for archaeologists, who obviously deal with very partial data. This is not the place to review the myriad of approaches to this crucial relationship in the social sciences and indeed archaeology (but for some relatively recent summaries, see Caple 2006; Greene 2008; Hahn 2012; Hodos 2010; Meskell 2001; Miller 1998; Tilley et al. 2006). Like many archaeologists, I view the relationship as a continuous process of negotiation, which takes material form through the social and habitual practices of past agents. ‘What most clearly defined identity was what was done with artefacts, not what artefacts an individual possessed. To put it succinctly (and pseudo-mathematically): $I = mc \times p$ (where I = Identity, mc = material culture and p = practice). Practice, in part at least, equates with the performative aspect of identity’ (Mattingly 2010, 287). Here, identity is seen not as a given but as created through the social interactions of people within the structures and rules of a given society (e.g. Dobres and Robb 2010; Gardner 2004; Robb 2010). Relationships (between people and between people and things) are central to this process and have been conceptualised in a number of ways that I have not the space to discuss here, with actor-network-theory and entanglement perhaps the two most prominent approaches (Hodder 2012; Latour 2007). Importantly, cultural traditions are enacted through material culture but can also be challenged and changed through it. In Roman case studies, depending on the theoretical and political outlook, various authors offer differing takes on the enabling or restricting forces of, for example, colonial and imperial power within that dialectic (cf. Gardner 2004; Hodos 2010, 25; Mattingly 2011, 216; Revell 2009). A relatively recent explicit discussion of the links between consumption, identities and colonialism considers both the things consumed and the ways they were consumed or rejected, with the chapter on culinary practices in ancient Gaul perhaps especially relevant (Dietler 2010, 183–256).

The concept of *practice* and the relationship between object design, use and identities is central to this book, especially in the context of writing equipment as a technology. As already briefly discussed, instrumentalist views of technology too often focus on practicality and rationality, rather than considering the cultural, symbolic and social factors that shape objects. In the latter view technologies express, affirm and contest world views and social values and are central to the relationships of people that share communities of practice (Dobres 2000; Haas 1996; see Chapter 3). Technical ‘know-how’ and daily practice have a bodily and experiential basis; in the case of writing we ‘know’ how to hold a pen or operate a mouse through instruction and modelling and only become aware of the culturally specific nature of gestures, bodily movements and posture if faced with materials designed for another culture (e.g. Haas 1996, 227, on the difficulties Japanese engineers experience with Western computers).

Arguably, in the Roman period much research has focused on consumption as a means of communicating identity, and as a consequence practical or functional features of objects have been neglected. Thus Swift (2014) argues for consideration of the formal design and appearance of artefacts, which evolved through craft practice and inform practical use. The term *affordance* has been defined as ‘the relationship between a physical object and a person’ and as describing ‘the perceived properties of an artefact that make possible, and incline people towards, specific uses’ (Norman 2012, 11; cf. Swift 2014, 203; 2017). Thus the design of furniture or tableware may (consciously or unconsciously) exclude or include people depending on their gender, age, physical ability or cultural knowledge (Swift 2014, 204, with excellent further references). Wear analysis of spoons also reveals interesting indications of actual use, demonstrating that daily practice does not always follow the maker’s intentions by identifying abrasion and differential wear that may relate to the handedness of the user (Swift 2014). For pens, Swift (2017, 31–56) examined nib forms and wear and relates these to the development of script styles and book hands in manuscripts and papyri. Unfortunately, as only a relatively small number of inkwells were examined personally, it was not possible to study wear marks, but the general ideas can be applied to Roman inkwells by analysing size and volume and portability (Chapter 6). It is also helpful to consider the embodied action of writing in ink during the Roman period and the material and technological aspects of inkwells and pens in particular (Chapter 3).

Throughout the book but especially in the chapters concerned with funerary evidence, I have been strongly influenced by the work of John Pearce (2013, 2015), both in terms of the need to adopt a closely contextual analysis of the material and his interpretation of burial assemblages as representational practices. I hope to address the former by a discussion of those graves where information on the location and position of the writing equipment survives (Chapter 7) and the latter in Chapter 8 when considering the iconography of tombstones as a form of self-representation (e. g. Freigang 1997; Hale 2010; Hope 1997). In fact, the entire funerary sphere can be viewed as the context in which identities are enacted and represented through material culture (Chapters 9–11).

CONCLUSION

It is important to distinguish between the use and importance of writing to a society and a person’s need to be literate. While there can be no doubt that the Roman world as a whole can be described as shaped by a literate mentality, the scribal system and oral performances of political speeches, poems and other texts enabled even those who could not read to participate in society, although these individuals were likely to be of lower socioeconomic status.

There were always more people able to read than to write, which has interesting implications for our consideration of writing equipment. Writing has been considered by some as an inferior activity, left mostly to slaves and freedmen writing to dictation, but as we have seen previously, this is probably only true for the very elite, and even they wrote certain types of documents by hand. On the other hand, many authors have stressed the prestige associated with literacy and the opportunities for advancement it could offer; we will consider depictions of writers and writing equipment in more detail in Chapter 8 and explore whether these images reflect social realities or the social pretensions of these 'sub-elites' (McDonnell 1996, 469; cf. Hopkins 1991, 140). The manifold ways in which power can be negotiated through writing will be of special importance in this context.

In line with the more recent academic discourse on literacies, this book is not concerned with levels of literacy but with the specific historical and chronological contexts of literacy. It aims 'to establish who was literate, what role in society they performed and what the likely repercussions of that role may have been' (McKitterick 1990, 6). What sets this book apart from the text-based analysis of most of the medieval and some of the Roman academic literature on literacy is the emphasis on material culture. In this I was inspired by Willemssen (2008), a book on medieval schooling that truly mixes material culture with wider considerations of education.

An important question is how we can best approach and analyse material culture, especially in the partial state in which it survives in the archaeological record, in order to ask broader questions about the society and people that produced and used these objects. I have argued that the concept of 'identity' still has value, but only if we approach it through a consideration of dynamic social practices within their specific historical contexts. I would argue that not enough consideration has been given to all the objects associated with the writing process, and recent work on the materiality of writing provided one inspiration for my work, as did practice-based approaches (Piquette and Whitehouse 2013; Swift 2014, 2017).

Part I will develop the idea of practice by discussing the various writing materials of the Roman period, as well as the evidence for their use; the question of writing as a technology and of the driving forces behind technological change will also be explored. Chapter 2 considers writing implements, both those used for writing on wax and lead and those employing ink. While some, such as the spatulae used to apply wax, are now quite well understood, others, notably so-called rulers and pen-knives have not seen much research. The same is of course true of inkwells, which therefore form a case study here. Both the written and iconographic sources clearly indicate that all writing equipment was carried and used together in sets, an observation borne out by the funerary evidence. It may also be helpful to think about writing equipment

as a technology (Chapter 3); in very literal terms, writing is about the copying of letters, accounts or literature onto scrolls and wooden tablets, and sometimes about original composition. More generally, we will consider whether writing equipment represents a *prestige technology*, not for the very elite whose voices we hear so clearly in the written sources but for those below this stratum, who would still have been considered of high status by the bulk of the population. I am interested in the ways in which potentially marginal groups such as provincials may have used writing as an enabling technology (cf. Bowman and Woolf 1994, 6–9; Bowman 1994, 122–123). Chapter 3 therefore focuses on who wrote where and on issues of practice such as posture and handwriting.

Part II of this book takes a closer look at one particular, and previously neglected form of writing equipment, the metal inkwell. I believe strongly that only detailed engagement with material culture can yield new insights, and inkwells offer an excellent opportunity for such a study as they are distinctive enough to be published as individual finds in site reports and, on many sites, clearly make up a significant proportion of the writing equipment. Thus, at Augst, after styli (1204), copper-alloy and iron pens (64), copper-alloy inkwells (61) were the most commonly recorded object (Fünfschilling 2012). Conversely, overall numbers, or at least numbers that can be accessed from the published sources, are low enough to make an Empire-wide study feasible. Chapter 4 examines the materials of inkwells, their production centres and makers. Their manufacture is set into the context of metal vessel production generally, and specific decorative techniques such as the use of Corinthian bronze are discussed. Chapter 5 presents the first overarching typology of inkwells. Corpora and typologies have been rather unfashionable within Anglophone archaeology, but must represent the basis on which all other arguments are built. This chapter also addresses the thorny issue of chronology and very briefly considers a range of objects commonly misidentified as inkwells. A full catalogue of all recorded metal inkwells is provided on the website of the Archaeological Data Service (<https://dx.doi.org/10.5284/1039969>). The numbers given in the text when discussing specific inkwells always refer to these catalogue numbers. The catalogue and index also state the country in which each inkwell was found.

Ancient practice is one of the driving themes of this book, and factors not normally considered in ancient artefact studies such as vessel volume and the use of double inkwells are therefore addressed in Chapter 6. This will show surprising differences between the capacities and presumably uses of metal and ceramic inkwells. I will then explore the spatial and social distribution of metal inkwells (Chapter 7). There is little point in attempting to use the presence or absence of particular forms of writing equipment to measure literacy levels as the publication record is so heavily skewed, but the mapping of selected types can show striking differences in their use. Social distribution studies adopt

an explicitly contextual approach, which I take firstly as an assessment of the cultural milieu in terms of broad site type. While other research has examined overall assemblage composition to distinguish between ‘material culture packages’ used on military, urban and rural communities, I have chosen here to trace a single artefact category across the Roman settlement hierarchy (Eckardt 2014, 10–20; Mattingly 2011, 235; e.g. Cool and Baxter 2002, 1999; Pitts 2014, 2010). An association with military and urban sites is perhaps to be expected, but this will be explored systematically. It should be noted that a social distribution analysis is most successful when focused on a single province, and where the selected category can be compared against other objects of similar material and date (cf. Eckardt 2005), and in this Empire-wide study only broad trends can be established. This is not the place to review current debates about how we as a discipline move on from the ‘Romanisation’ paradigm and about the usefulness of globalization and post-colonial theory (cf. Gardner 2013; Hingley 2005; Pitts and Versluys 2015; Versluys 2014; Wallace-Hadrill 2008, 9–14), but we will explore some of the challenges the ‘thin’ distribution of objects across the whole of the Empire pose for the relationship between the local and the global. I am also interested in the more detailed contexts of inkwells, for example, their inclusion in hoards and votive deposits, as well as their recovery from a wide range of domestic contexts.

Part III considers the funerary evidence in detail by adopting a life-course approach and relating the material culture of literacy to gender, age and status. This section begins with a discussion of the self-representation of literate individuals through monuments; I will consider in what particular contexts (notably funerary) and for which particular groups (soldiers, professional administrators but also women and children) writing equipment may have had special symbolic significance, and how such depictions varied across the Roman Empire and through time (Chapter 8). In some cases, for example, female literacy, images and the written sources might represent dominant ideologies, whereas the funerary evidence (Chapter 9) tells a more nuanced story. Here I was influenced by authors who explore the interplay between age, gender, profession and identities across time (e.g. Harlow and Laurence 2002, 2007). We will see that writing equipment is commonly found in female graves, and even the graves of children; this allows us to consider the nature and practice of Roman education and ancient and modern prejudices about literate women. Chapter 10 considers what writing equipment in children’s graves can reveal about acquired and inherited identities. Analysis of the funerary data also shows a noticeable association of inkwells with medical specialists, and multiple objects associated with writing may point to the graves of scribes (Chapter 11). This final chapter also explores how a range of objects placed into graves may be read in terms of cultural know-how, not just in terms of literacy

and accountancy but also in terms of bodily presentation. Most of these high-status graves come from the provinces, where material expressions of literacy perhaps represent a modest and material expression of a shared literary education, which ‘proclaimed the existence of a common culture that was held to be the distinguishing mark of the diffused governing class of the empire, shared alike by the notables of each region and by the personnel of the imperial government’ (Brown 1992, 36).

Overall, I hope that this book offers the reader both a detailed case study, which fully engages with the materiality, uniqueness and particularities of a specific form of ancient writing equipment and a much more general, theoretically informed discussion of the role of writing in Roman society. The Roman world was defined by the written word in many ways, and this book is telling stories about literacy through objects. In terms of method, I am keen to offer a ‘thick description’ of writing equipment that fully engages with both practices and their contexts (Geertz 1973, 3–30). I am interested in the identities of the people who used writing equipment, which are situational and historically specific, and which require detailed contextual analysis. It is important to remember, however, that objects ‘are never mere symbols of identity but extend personhood and agency, enabling action and “making” certain kinds of people’ (Giles 2012, 36). Rather than just asking what inkwells stand for in terms of identities, I am therefore keen to explore how they transformed and shaped the Roman world.

TWO

THE *PRACTICALITIES* OF LITERACY: WRITING IMPLEMENTS IN THE ROMAN WORLD

Writing is a physical practice; it shapes and is shaped by the tools used and by the type of text that an individual is aiming to produce. The writer's posture, age, gender, experience and training will result in a personal and/or group handwriting style. Considerable effort is expended by the modern British education system to teach not just the skill of writing but to enforce stylistic rules, such as 'joined-up' writing (e.g. Sassoon and Briem 2010). Until relatively recently, left-handed children were taught to write with the right hand, while now there are specialist resources available to teach left-handed writing (anythinglefthanded.co.uk). Writing with different instruments will result in a very different writing experience, as anyone who has used a pencil, ballpoint pen or fountain pen will know. Professional and prolific writers are often particular about their writing materials, with, for example, Charles Dickens preferring quills over steel pens and complaining about poor writing equipment in one of his many letters: 'With an intolerable pen, and no ink, I am going to write a few lines to you' (Tillotson 1977, 230).

Archaeologists have long made concerted efforts to engage with Roman writing equipment, often by studying specific object groups. In recent years much more attention has been paid to practice theory in archaeology, as a means of understanding objects not simply in terms of their function, typology and date and in terms of what they might represent, but also in terms of what they did in ancient society and how they did it. 'Artefacts prompt or constrain

certain types of behaviour, and thus play a rôle in perpetuating established cultural conventions or, conversely, in cementing cultural changes' (Swift 2014, 204). As we have seen, specialised dining equipment is not simply practical, but offers opportunities for the display of specialised cultural knowledge and in effect status, and the same can be argued for writing equipment. These aspects can be explored through iconographic evidence and self-representation (see Chapter 8), but first we must come to grips with the range of objects associated with the ancient practice of writing. This chapter will discuss the evidence for writing surfaces, and the tools needed to write on wax and in ink. Special attention will be paid to inkwells, as these are perhaps the most neglected artefact category in this dataset (see also Chapters 4–7). Where appropriate I have drawn on literary sources, but this is not the primary focus of the chapter. Amongst the most relevant are the so-called colloquia, phrasebooks written for Greeks who were learning Latin that often used scenes from daily life. These include school lessons that mention writing equipment (Dickey 2015, 14–22); in addition to the writing tablets, a stylus- or writing-case, ink, styli and pens, this includes possible reference to a ruler (Dickey 2015, 17; Dickey 2012–2015 I, 105 and 143 and II, 21 and 49–50; cf. Criboire 1996, 67).

During the Roman period, people wrote on a wide range of portable materials, namely papyrus, vellum, lead, wooden wax tablets and thin shavings of wood as well as ostraca (pieces of pottery with scratched or inked writing) and containers for traded goods such as amphorae and wooden barrels. The availability and survival of these various materials obviously varied across the Empire (e.g. Bülow-Jacobsen 2009; Tomlin 2011). After describing the material culture associated with writing in this chapter, Chapter 3 will use textual and archaeological evidence to consider where and how these objects were used.

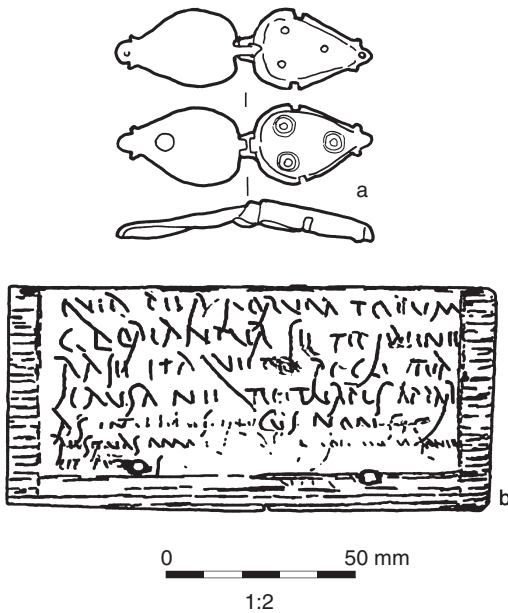
WRITING IMPLEMENTS USED ON WAX AND LEAD

The use of wood to record contracts, private and official correspondence and even public announcements was clearly very common across the Empire, but the evidence only survives under exceptional circumstances, namely either damp and anaerobic or very dry conditions (Bartoletti and Pescini 1995, 59–113; Hartmann 2015, fig. 1). Conditions favourable to survival are more likely to occur in deeply stratified urban and military sites, but there are chance survivals in wells and similar features from other types of sites (Speidel 1996; Pearce 2004, 47–51, fig. 36, table 1; cf. Marichal 1992a).

We will examine below examples of writing in ink on wood, notably the famous Vindolanda tablets, but I turn first to wooden wax tablets. These are rectangular panels of wood in which the inner panel has a shallow recess that could be filled with wax and then inscribed with a stylus. The wax was

coloured black with soot and other materials (Gaitzsch 1984, 192–193) and then inscribed using a stylus, with the colour of the wood providing the necessary contrast once exposed by the stylus; the texts now only survive where the stylus scratched the underlying wood. Recent analysis of surviving organic materials from London identified beeswax and soot (Tomlin 2016, 284–286). The outer faces are flat, and panels could be linked together in facing pairs or in threes (Frere and Tomlin 1992, 11–21; Speidel 1996, 17–30; Božič and Feugère 2004, 22–25). Wooden wax tablets were often used for legal texts such as wills and official records and are strongly associated with ordering the state, household and ceremonial and legal actions in Roman thought; they are not generally for quick notes but for final, carefully considered documents (Meyer 2004, 21–43). The inner text was sealed by witnesses, often using separate compartments cut into the second tablet of a triptych (e.g. Chapman and Straker 1986, 227; Willis 2005, 101). The outer visible text would be a copy of the authenticated and protected inner text (Tomlin 2011, 150–152; Speidel 1996, 17). The outer surface could also carry an address, or in some cases branded stamps (*see* Cover image). Wax tablets are often made from imported wood such as silver fir, cedar, larch and spruce (Chapman and Straker 1986, 227). In the large (405 tablets) assemblage from the Bloomberg site in London's Walbrook valley, the overwhelming majority was made from silver fir, with only ten identified as spruce or larch and two as maple (Tomlin 2016). It is argued that the tablets from this site were made from barrels, based on the type of wood and detailed observation of the fragments. Not only was the wood recycled but also the tablets themselves could be reused by replacing the wax, and on occasion, traces of an earlier text scratched into the underlying wood were found (Figure 2.1). An inscription from Rome provides the only example of a maker and/or trader of wax tablets, the *pugillarius* Caecilius Hilarus (Hartmann 2015, 43).

Seal-boxes, small hinged copper-alloy capsules designed to protect a wax seal, were used to secure wax tablets and are therefore often taken as representative of literacy (Figure 2.1). Beyond attempts to order the rich material in terms of typology and chronology, their distribution has therefore been studied in detail, as have their contexts on urban and rural sites (e.g. Andrews 2012; Derks and Roymans 2002; Derks 2010; Feugère and Abauzit 1995; Furger et al. 2009). Thus the widespread use of seal-boxes on Batavian rural sites in the Rhine delta may reflect the militarised nature of this area, and possibly the presence of veterans who had gained experience of written communication during their active service (Derks and Roymans 2002). The distribution pattern is in contrast to neighbouring regions of Gaul, where seal-boxes are rare on rural sites, but the peak in the Batavian area may also be a result of good relationships between metal detectorists and archaeologists and of favourable soil conditions. For Britain, the previously identified bias towards urban

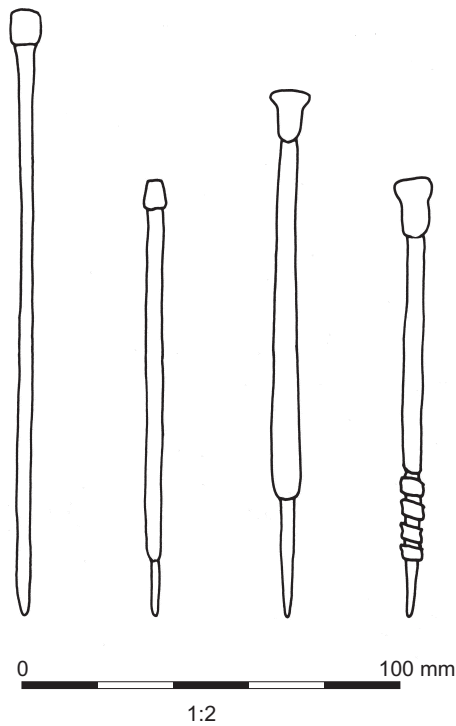
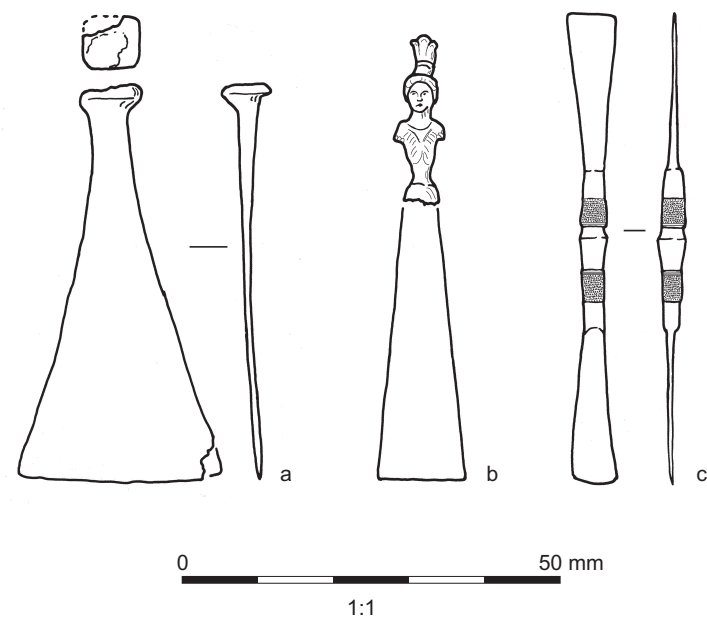


2.1. Seal-box from an inkwell grave at Ergolding (after Struck 1996, pl. 71.28) and stylus tablet <WT30> from London Bloomberg (by kind permission of Museum of London Archaeology and Roger Tomlin).

and military sites is also beginning to be changed by metal-detected data from rural sites (Andrews 2012; Eckardt 2014, 184–186). However, many seal-boxes may have been used to secure valuables, in particular in cloth or leather bags; in this case, they clearly cannot be taken as indicators of literacy (Andrews 2012, 80–92; Derks and Roymans 2002, 91; Derks 2010, 725).

The wax was applied, and re-applied to reused tablets, with a wax spatula, an instrument that usually consisted of an iron blade and a copper-alloy or iron handle (Figure 2.2a; Gaitzsch 1984; Božič and Feugère 2004, 31–33). The iron blade may have been heated to apply the wax (Tomlin 2011, 149). The association with writing is certain, as these spatulae are frequently depicted together with other writing equipment on wall paintings and

funerary monuments (Figure 2.7); they are also found in grave assemblages together with both styli and inkwells (e.g. Gaitzsch 1984, figs. 2 and 3; Božič and Feugère 2004, fig. 21). A particular type of wax spatula is decorated with a bust of Minerva, a very appropriate image given her association with wisdom and learning; these occur commonly in Britain, France and Belgium and along the Rhine (Feugère 1995a; Franken 1994; Faust 1998; Eckardt 2014, 187–193, figs. 7.5–7.6). There are considerable differences in the detail of the design and the quality of execution, perhaps hinting at regional production centres operating in the second century AD. In Britain, significant numbers come from rural sites and this may be because these decorated objects were for the overt display of literacy or possibly because, once detached from the iron blade, the handles served as votive objects in their own right (Crummy 2003, 16). It is quite striking that from Britain more than thirty Minerva handles have been recorded while only six plain examples are known to me (Crummy 2003, table 1 lists three examples, to which can be added PAS: GLO-418C96 and SF9123 and an unpublished example from Ware: pers. comm. Nina Crummy). Double-ended spatulae of Type Feugère B2 are more numerous, with nineteen examples recorded, mainly from London, Vindolanda and Carlisle (Crummy 2003, table 1). These objects are sometimes interpreted as potters' or modelling tools, or even as medical instruments, but are almost certainly for the application of wax as they are frequently found associated with writing equipment



2.2. (a) Wax spatula types (after Feugère 1995a, fig. 1) and (b) stylus types after Manning (1985, fig. 24).

(Dolenz 1998, 225–231; Feugère 1995a, 324–326, fig. 1; Schaltenbrandt Obrecht 2012, 82–88). One such spatula comes from an inkwell grave in Duklja (No. 434). It has been suggested that lead ‘pens’, which have a copper-alloy or brass handle and suspension loop and were found together with hundreds of styli in the harbour of Ostia, were used to write on wooden barrels or crates, but this is not entirely convincing (Drescher 1988).

The instrument used to write on wax tablets, the stylus, usually has a slender shaft with one pointed end for inscribing into the wax and one end flattened to smooth the warmed wax (Figure 2.2b). Styli are most commonly made from iron in a variety of shapes and on occasion with decorative mouldings and inlays of other metals (Schaltenbrandt Obrecht 2012; cf. Božič and Feugère 2004, 29–31, fig. 25; Manning 1985, 85–87); bone styli are rare and usually of an early date (Božič and Feugère 2004, fig. 26; Gostenčnik 2005, 72–73; Greep 2002; Mikler 1997, 25–27). Gostenčnik (2005, 46) identified chew marks on bone styli from the Magdalensberg (Austria), indicating that the familiar action of chewing on a pen when thinking is not a modern phenomenon. It has been suggested that in Roman Britain the use of styli spread well beyond urban and military sites to rural settlements (Hanson and Conolly 2002; Mullen 2016, fig. 1), but quantified detailed surveys are still rare (Schaltenbrandt Obrecht 2012).

Styli would also have been employed to incise letters into lead, although any pointed object such as a nail could also have been used. Lead curse tablets are especially common in Britain, but also occur in other parts of the Empire; they are usually a petition to a god, in Britain often relating to theft (Tomlin 1988, 1993, 2002; cf. Blänsdorf 2012; Gordon and Marco Simón 2010; Kropp 2008). Lead tablets may have been displayed in temples, or could be folded as if intended for the eyes of the gods alone. Presumably the thief did not need to be able to read but the curse would still be effective through his or her sense of guilt and a fear of divine punishment, which may have manifested itself when illness or misfortune occurred (Kiernan 2004). It is striking that many of these tablets are apparently written by native Britons, who may not have belonged to the highest stratum of society judging from the items stolen, but who were nevertheless clearly able to write their own text. It has recently been shown that ink was sometimes used to write on lead tablets and this may well explain the presence of apparently blank lead tablets in sanctuaries (Reuter and Scholz 2004, 15, figs. 16–17; Tomlin 2011, 134).

Ink was also used to add names and addresses to the exterior of wax tablets (von Boeselager 1989, 227); wax tablets could also be reused by writing directly onto the recessed area in ink, as is attested on a number of sites (e.g. Reuter 1999; Speidel 1996, 17; Tomlin 2011, 151; Turner 1956). In the following we will review the evidence for Roman ink and for the other materials required to write in it.

WRITING IN INK: MEDIA AND IMPLEMENTS

Ink

Roman writers used both black and red ink, with the latter preferred for headings (Božič and Feugère 2004, 34; Fünfschilling 2012, 166; Legras 2002, 72; Öllerer 1998, 144; Paffgen 1986, 176; Tomlin 2011, 147; Willis 2005, 100). Red ink is sometimes used in magical papyri and appears on both sides of an ostrakon with what may be a magical invocation (Montevecchi 1988, 16; Verreth and Goldfus 1999). With the actual colour ranging from yellowish to red, it can also be used to write on other documents such as wills and contracts; red ink appears to have been employed here mainly to mark edits and alterations on such documents and to approve copies (Schubert 1990, 34–39). Circular stamps in red ink also occur. At the beginning of one papyrus, red and black ink are mixed, suggesting that the same pen was dipped into both inks (Schubert 1990, 37). Red ink applied with a brush is also often used on pottery vessels to indicate their contents (e.g. Ameling et al. 2011, 657–660).

Ancient sources (e.g. Pliny, *Natural History* 35.41; Vitruvius, *On architecture* VII.10.2) state that black ink was made from soot, especially that made from the pitch pine, suspended in a solution of gum arabic or glue. Gum arabic is the dried sap of the acacia tree, usually originating from Egypt and Asia Minor (De Hamel 1992, 33). Shoemaker's black (*chalcanthos*, iron vitriol, used to dye leather black) was also known (Pliny, *Natural History* 34.123–34.125). Red ink may have been made from vermilion/cinnabar (a plant extract), minium/red lead (a mineral) or other red materials such as ochre (Herzog-Hauser 1940, 1577). Invisible inks were used for love letters, for example, when writing in milk, which could be made visible by scattering ash over the text (Blanck 1992, 67; Herzog-Hauser 1940, 1578; Macrakis 2014, 1–18). Greek magical papyri contain recipes for ink, using ingredients such as myrrh, but it is unclear whether those were ever meant to be functional (e.g. Betz 1992, 9, 13). Even the production of basic black ink could be quite a laborious process in antiquity. For example, Vitruvius (*On architecture* 7.10.1–7.10.4) describes a small furnace in a marble-clad, vaulted room; the soot from the burnt resin of ideally pitch pine and lamp oil eventually clings to the walls, from where it is collected and mixed with gum arabic. In the medieval period black ink was commonly made from iron-gall, the oak apples caused by gall wasps (De Hamel 1992, 32–33).

It has been argued that the ink used to write a receipt issued in AD 130 on a reused wax tablet found in a well in Hanau (Germany) must have been made from iron-gall, as it would otherwise not have survived (Reuter 1999, 287; Reuter and Scholz 2004, 19). This is not entirely convincing, but recently tests on first- to second-century AD graffiti from Smyrna identified iron-gall ink (Bagnall 2011, 10). Iron-gall ink was also identified by gas chromatography-mass

spectrometry (GC-MS) from samples found in a complete Samian inkwell from the harbour site at Voorburg-Arentsburg in the Netherlands (Driessen and Besselsen 2014, 187, fig. 8.17). Proton induced X-ray emission analysis of papyri in the Louvre showed that all the Demotic texts were written with brushes and carbon ink while reed pens and metallic ink were used for the Greek texts (Leach and Tait 2000, 238–239). Despite the application of a wide range of analytical techniques, iron-gall ink was not detected amongst five ink samples from Pompeii (Canevali et al. 2011). Analysis of ink on a papyrus from Herculaneum confirmed carbon-based ink (Störmer et al. 1990), and very recently synchrotron X-ray fluorescence analysis of fragments from the Villa of Papyri in Herculaneum identified lead concentrations in the ink that are too high to represent contamination from lead pipes (i.e. the water used to mix the ink) or from lead inkwells. Lead could have been used as a pigment or a binding medium in the ink, perhaps to speed up the process of drying (Brun et al. 2016). To my knowledge, the ink from the Vindolanda tablets has not yet been tested (Willis 2005, 100).

We are better informed about ink and paint recipes for the eleventh to fifteenth centuries, when a pioneering research project combined the translation of eighty recipes with experimental work and chemical analysis (Schreiner and Oltrogge 2011; Hahn et al. 2005). This highlighted a wide range of ingredients, from fig juice to wine, and of time-consuming processes, many of which must have been transmitted orally and through practice, as the recipes often lack sufficiently detailed instructions, especially on the quantities required.

Ink was traded in its dry state and was relatively expensive; Diocletian's price edict records a price of twelve denarii per pound (Graser 1940, 369; Herzog-Hauser 1940, 1576; Gaitzsch 2001, 75). Much earlier, amongst the mid first-century AD accounts of the record office at Tebtunis in Egypt, an unspecified amount of ink is priced at one obol (Head and Warren 1997, 468; Boak 1933, 100, Verso II, 30); this equates to a third of a day's wages for an unskilled labourer (Harris 1989, 195).

The costs of writing materials in general are the subject of much debate, as the sources are from different time periods and places, making comparison difficult (Roberts and Skeats 1983, 7). Ink was considered relatively expensive in the medieval period, although the labour cost of the scribe always outweighed that of the materials (Clanchy 1993, 121–122; De Hamel 1992, 33; McKitterick 1989, 135–164). In the medieval period, ink was sold on the street or could be produced by a schoolmaster and sold to pupils (Willemssen 2008, 85).

Whatever the costs, the ingredients have to be ground into a paste or powder, which is then shaped into sticks; finally, a grinding stone or palette is needed to pulverise the ink before it is mixed with water at one part gum to

three parts of carbon black (Forbes 1993, 236–239; Herzog-Hauser 1940; Jilek 2000, 98; Päffgen 1992, 250). The preparation of ink may have involved stone palettes and instruments more commonly described as spoon-probes or cosmetic spoons, and such objects have indeed been found in a number of graves that also contained inkwells (see Chapter 11, Figure 11.5). These are the burials of both men and women, and in many cases it has been suggested that these objects were for medical or cosmetic use, but it is quite possible that they in fact represent specialised objects associated with writing.

It is likely that only small amounts of ink were mixed ready for use and that the closely fitting lids on inkwells protected the ink from drying out. During writing the hinged aperture cover, cork stopper or indeed the whole top could be opened or removed to allow the writer to dip the pen into the ink (Figure 2.3; cf. Fünfschilling 2012, 188–189). More rarely, solid blocks of ink were used with a wet brush in the same way as paints; such blocks could be kept in wooden containers or open bowls (Fünfschilling 2012, 166, 186, fig. 38; Merten 1987, 310–316; cf. Driver 1948, 86–87, pls. 30–31).

Complete inkwells appear to have been placed into graves filled and ready for use, and in a number of cases (e.g. No. 136 Aquincum, No. 81 Haltern, No. 266 Keszthely-Fenékpuszta, No. 141 Meerbusch-Ossum, Nos. 35, 37 and 94 Nijmegen, No. 85 Picenum, No. 226 Rheinzabern, No. 452 Rome) sooty remains survive to this day. The excavator of the inkwell from Meerbusch-Ossum (A. Steeger) even added water and wrote letters with the inky remains (No. 141; Päffgen 1986, 176). An antiquarian find from Croatia was analysed in 1888 and the residue was described as carbon (No. 476; Bulić 1894, 165–166), and the residue in an inkwell from near Rome was described as pine soot (No. 452; Steinby 2003, 106–108). The inkwells from Picenum are said to have contained black dust, which when analysed was defined as 90 per cent copper and 10 per cent iron/lead/tin (No. 85; Mercado 1974, 114). The most comprehensive modern analysis of Roman ink remains was conducted on a copper-alloy inkwell from St. Severin, Cologne (No. 126; Päffgen 1992, 250–252; Wasgestian and Quarg 1986). This was shown to be made up of soot (possibly pine wood) and some sand (quartz); the latter may have been introduced when the dried ink was ground down prior to adding water. Another recent analysis was carried out on residues on three inkwells from rich graves in Nijmegen, which identified the carbon as bone black (Nos. 35, 37 and 94; Koster 2013, 337–338). The black material in five inkwells¹ from Pompeii was analysed using an array of techniques, suggesting that it was carbon-based, with no iron-gall ink detected (Canevali et al. 2011).

¹ Which I cannot easily match to published examples in my catalogue: Acc. No.: 5402A, 12458B, 12724, 12747B, 12747C.

Inkwells

In the Roman world, inkwells are known to be made of a variety of materials, mainly pottery and copper-alloy but also glass (see Chapter 4). Metal inkwells are relatively small vessels, usually cylindrical and only very rarely multi-sided. An eight-sided inkwell is known from Terlizzi (No. 42), and there are hexagonal inkwells from Pompeii and on the antiquity market (e.g. Nos. 122 and 450; cf. Colour Plate 8.1). A hexagonal lid can also be combined with a circular body (e.g. Cologne Nos. 69–71). Enamelled vessels of Type Johns (1993) are hexagonal, although as we will see these are probably pyxides² rather than inkwells. Only one Pompeian wall painting shows a multi-sided single inkwell (Blanck 1992, 68, fig. 42).

Metal inkwells usually have a circular opening in a disc-like top which is closed by a hinged aperture cover to prevent the ink from drying out and from spilling if the vessel was moved (Figure 2.3; Koster 1997, 88). Many of the Pompeian wall paintings, usually of the fourth style, show cylindrical double inkwells with what appear to be hinged lids (e.g. Blanck 1992, 68, fig. 42). On several painted Pompeian examples (e.g. Croisille 1965, pl. CIX, No. 205; Riz 1990, pl. 63.1) the small aperture covers appear to be more conical and larger than in the surviving metal examples; this could be a result of the artist drawing attention to an important but intricate feature. The inkwell from the rich grave at St. Severin (Cologne) had a cork stopper; cork is a plastic, strong but light material and makes an ideal stopper but is only found under favourable preservation conditions. The use of cork in the north-western provinces is interesting because the cork oak is a southern tree, so such stoppers must have come to the provinces through trade (Päffgen 1992, 252–253; cf. Gaitzsch 2001, 75; Pugsley 2003, 32–40).

Inkwells, in particular those predating the middle to end of the second century AD, can have a handle; this is usually a ring handle fitted with a split pin either to a tapering sheet of metal on the body or to the element that held pairs of inkwells together. Such a handle may have allowed the inkwells to be carried, or for other writing materials to be secured to the inkwell as part of portable sets (Figure 2.8). Of completely different construction is a copper-alloy inkwell said to be from Qumran (No. 124; Davies et al. 2011, 66), which is shaped like a cup with a dished lid and central opening; fitted to the rim are two semicircular plain handles that could be folded down onto the rim (Figure 5.17; cf. Fünfschilling 2012, 188; Päffgen 1992, 252). Similar examples are known from Jordan (Nos. 428–433; Khairy 1980).

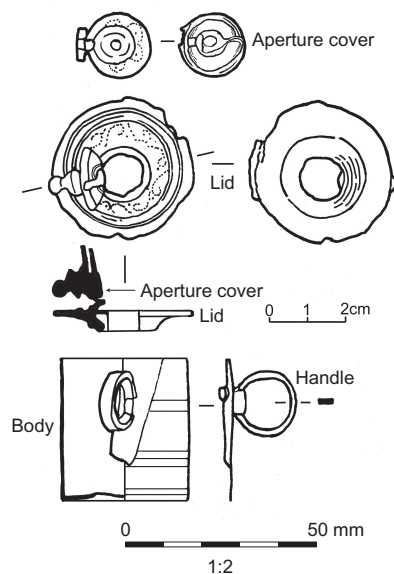
² The term is used for containers for cosmetics, medicines or other objects, usually with a closed lid.

Some later inkwells have tight-fitting lids slotted over the body and secured by a chain. When a lid had become detached or damaged, ingenious solutions could be found; thus a copper-alloy example from Nijmegen has a dupondius of Nero as a lid (Koster 1997, 88–89, No. 120). Poorly fitted lids and lids made of a different material were also used (e.g. Radnóti 1957, 211). Inkwells are often found with other writing equipment, sometimes still containing ink residue. The Latin name for inkwell is *atramentarium* or *atramentale*, as attested on graffiti on Samian fragments from La Graufesenque and in Pompeii (Hilgers 1969, 39, 112; cf. Bilkei 1980, 62; Fünfschilling 2012, 186; Graux 1877; Koster 1997, 88; for terminology in Greek, see Griffith 1912, 67–68).

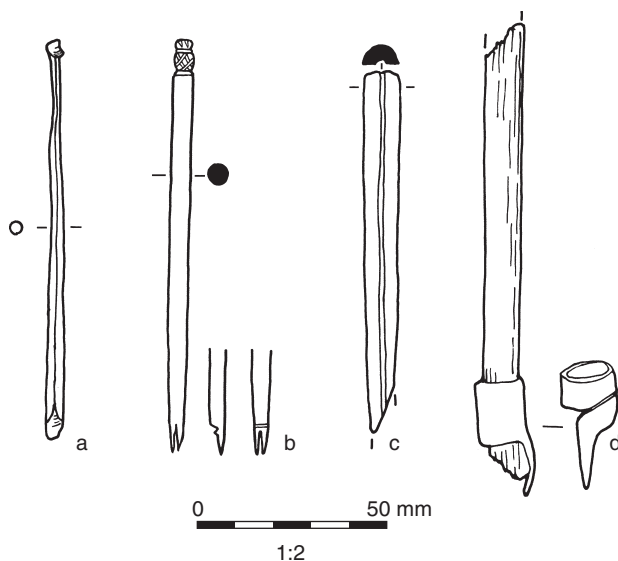
I will consider the typology, chronology and manufacture of metal inkwells in much more detail in Chapters 4 and 5, and the question of how they were used in Chapters 6 and 7. There, we will reflect on the interplay between the design created by inkwell producers and the actual practice of use, exploring their volume and size, portability and the operation of the lock mechanisms. In addition to the writing material and its container, writing in ink required the use of a pen, a pen knife, tools for setting out the lines and a writing area and possibly small labels attached to completed documents.

Pens and Pen Knives

Analysis of writing tablets such as those from Vindolanda indicates that pens with a split nib were used; these pens were made from sharpened reeds or possibly feather quills (Tomlin 2011, 147–148; cf. Tait 1988). Reed pens were very much the favoured material, with the Latin word for pen being *calamus* (reed) and the use of quills made from feathers not attested until the sixth or seventh century AD (Blanck 1992, 66–67; Božič 2001a, 27). Reed was a cheap, flexible material and the tip could be easily recut (Austin 2010, section 6.3.a, figs. 1–4; Jilek 2000, 97); reeds from specific regions may have been especially esteemed (e.g. Pliny, *Natural History* XVI.64.157–XVI.65.158). It has been suggested, based on papyrus evidence, that such sharpening may have taken place every fifty lines (Kidd 2013, 241). Very recent work by Swift (2017) re-examined surviving pens for nib forms and wear and explored how the objects relate to practice, in particular script styles or book hands in manuscripts and papyri. Careful observation can reveal information about the ways in which pens were



2.3. Terminology employed in this book illustrated on an inkwell from Nijmegen (No. 35, after Koster 2013, pl. 54.19).



2.4. (a) Copper-alloy pen from South Shields (after Allason-Jones and Miket 1984, no. 3.749), (b) bone pen from Carnuntum and (c) and (d) pen/ox-goat from Vindolanda (after Fünfschilling 2012, figs. 14 and 21).

sharpened and how competent scribes could employ slightly different pen angles to create strokes of different thickness (Austin 2015; cf. Johnston 1962).

Occasionally copper-alloy, silver, bone and ivory pens have been recorded (e.g. Božič and Feugère 2004, 37; von Boeselager 1989, 227). Good examples of copper-alloy pens come from Pompeii, Trier, Mainz and Augst (e.g. Blanck 1992, 66–67, fig. 37; Božič 2001a; Fünfschilling 2012, 165, 177–180; Gaitzsch 2001, 75). They usually are between 10 and 19 cm long and consist of a simple tube of metal with a pointed tip. Most finds are from Italy, Switzerland and Germany with only two copper-alloy pens currently known from Britain: one from South Shields and another from London; both have an expanded butt-end, possibly for stirring the ink (Figure 2.4a; Allason-Jones and Miket 1984, 220, no. 3.749; Wheeler 1930, 58, fig. 11.1). There are burnt *calami* from Hungary, and a very well-preserved bone pen with a deeply split tip and decorated top is known from a third-century context in Carnuntum (Figure 2.4b; Jilek 2000, 95, figs. 1–2).

A curious type of implement found on many Roman sites has a wooden shaft and iron nib; these objects are usually described as ox goads but some smaller examples have also been interpreted as pens (Figure 2.4c–d; Birley 2002, 35, fig. 26; Rees 2011, 96). Experiments at Vindolanda suggest they could function as writing implements, possibly to write with ink on coarser materials such as pottery (Fünfschilling 2012, 178, fig. 21). However, the Vindolanda tablets were written with pens that had a split nib (Tomlin 2011, 148), and on balance, they seem more likely to have been used to urge on draught animals.

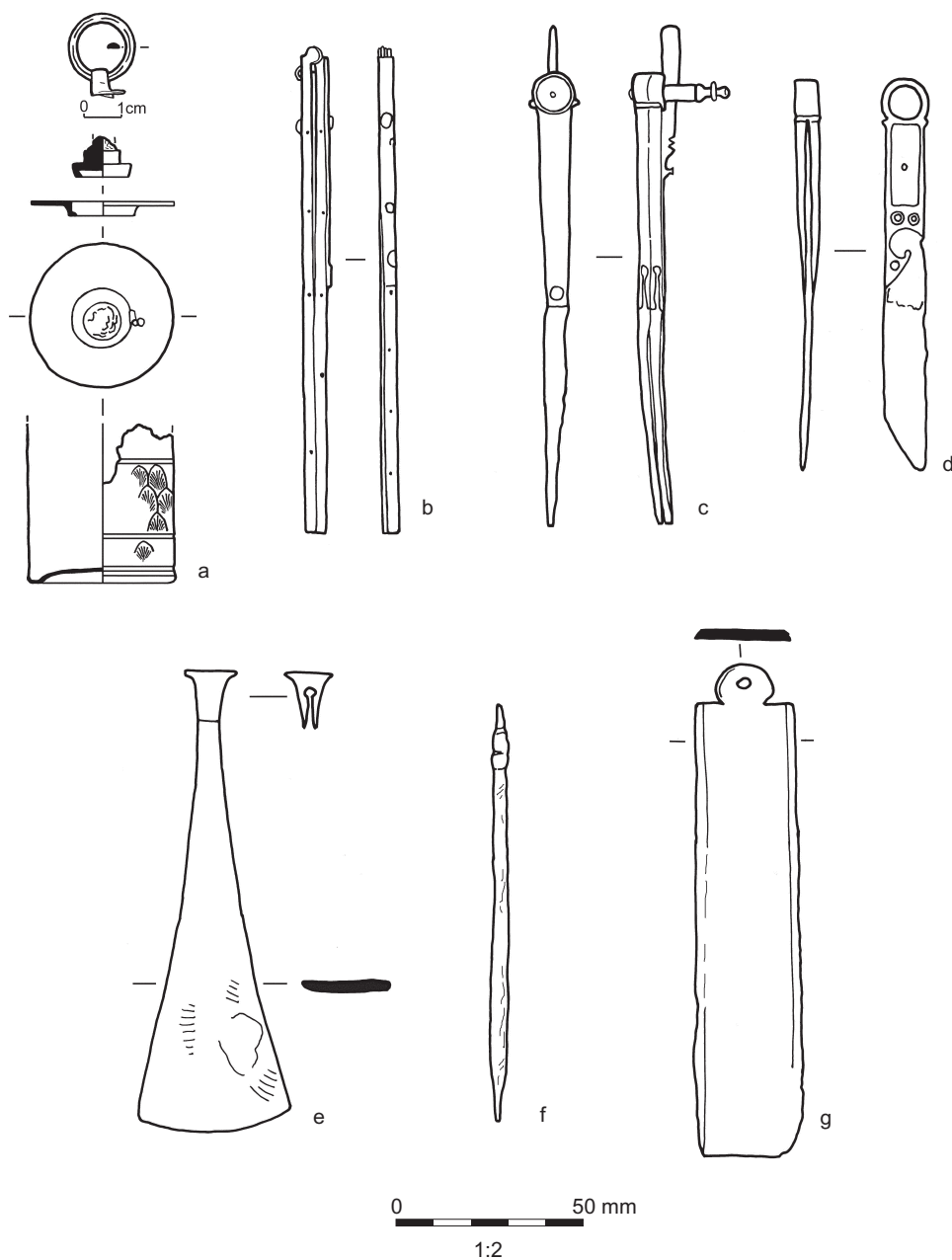
In addition to pens, a brush (*penicillus*) may have been used to either paint or write (Fünfschilling 2012, 165–166).

As we have seen, reed pens were sharpened regularly, and it now seems likely that small knives characterized by a copper-alloy or bone handle with a distinctive lunate cut-out and a parallel-sided, pointed iron blade were used specifically for this purpose (Figure 2.5d). The type, which dates to the second half of the first century AD, has sometimes been described as a razor or toilet knife (Garbsch 1975; cf. Boon 1991), but its association with writing equipment in numerous graves and on the Atimetus relief (Figure 2.7) suggests it was indeed a pen knife (Božič and Feugère 2004, 37–39; Božič 2001d). There is a related small group of knives made entirely from bone or ivory (Božič 2002, 35–36, fig. 6), one of which was found in a grave at Brindisi containing a large quantity of writing equipment (see Nos. 184 and 245–48; Cocchiaro and Andreassi 1988).

Other Objects Associated with Writing in Ink: Dividers, Rulers and Sponges

Dividers, usually made from either copper-alloy or iron and more rarely produced from both materials, were used to lay out lines and borders (Bertrand 2011; Božič 2001f; Deimel 1987, 54, pl. 34). A number of such objects have survived, sometimes not correctly identified, but their association with writing is demonstrated by a Flavian grave from Berlingen, which also contained an inkwell, wax spatula, pen knife and bone ruler (Figure 2.5c; Roosens and Lux 1973, 25). Other cases in which dividers are associated with inkwells come from the hoard find in Immendorf (Nuber 1976) and the rich grave in Brindisi (Cocchiaro and Andreassi 1988). A copper-alloy object that has sometimes been described as a ruler or measuring tool (Feugère 1995b) may in fact be some form of a multifunctional forceps or prong (Gostenčnik 2008).

Judging from the iconographic and funerary evidence, a very distinctive bone object is also closely associated with writing, even if its exact function is not known. These objects are rectangular (sometimes slightly flared), with a round head that can be pierced (Figure 2.5g). They have been described as smoothing tools for parchment or as writing material for short notes or labels (von Boeselager 1989, 227). Three examples (numbered I, II and III) are depicted on a tombstone of a husband and wife in Aquileia; next to them is an open scroll, supporting their interpretation as labels or possibly accounting tools (Maionica 1903, 366, fig. 2). Others have interpreted them as rulers (Božič 2001g; Božič 2002, 34–35; Tomlin 2011, 148), or they could have functioned as line guides for both reading and writing. A recent study of thirteen such bone objects from London argues against use as a ruler based on wear and suggests that they may have been used to smooth wax tablets or parchments (Davis 2016). Modern calligraphers employ a ‘thin slip of bone’ to keep the



2.5. Inkwell, folding ruler/measure, dividers, pen knife, wax spatula, stylus and bone 'ruler' from a grave in Berlingen (after Fünfschilling 2012, fig. 5).

paper flat and steady (Johnston 1962, 30, fig. 41) and medieval scribes used a knife held in the left hand to steady the page (De Hamel 1992, fig. 29). Graves where these enigmatic bone objects are associated with writing equipment are relatively common (see Chapter 10; Božič 2002). At Nijmegen (graves 8, 9

and 11), iron wax spatulae had corroded onto these bone objects, further confirming their close association with writing equipment even if the exact function is unknown (Koster 2013, 190). Curiously, bone objects of similar form but with an incised name and date combination have long been identified as *tesserae nummulariae*, used to attest the quality of coins by officials in mints or banks; there are also inscribed gaming pieces of this shape (Mlasowsky 1991, 27–32; Pedroni 1995, 161–184). From the Bloomberg site in London there are two labels made from silver fir (Tomlin 2016, 274, fig. 138).

In a rich grave from St. Severin, Cologne, an inkwell still containing ink and a sponge were found; this is interesting because it would represent an import from the Mediterranean (Päffgen 1992, 252); parts of sponges are also said to have been found within two inkwells from Pompeii (García y García 2005, 135). Such sponges were probably used for cleaning writing tools and to obliterate mistakes (Dickey 2012–2015 II, 50, with multiple ancient references). This is the idea expressed by Martial (*Epigrams* 4.10), ironically sending his work to a patron with a sponge so that offending passages can be wiped out. The accounts of the record office at Tebtunis in mid-first century AD Egypt mention the purchase of sponges with other writing equipment, with the ink, pen and sponge all listed for the price of one obol (Boak 1933, 100, Verso II, 30; Head and Warren 1997, 468). At this time skilled labourers earned about six obols a day, unskilled ones three (Harris 1989, 195). A sponge is depicted next to an inkwell, pen and scrolls on a tombstone from Istanbul dated to the first century BC (Pfuhl and Möbius 1979, No. 2271). A pumice stone such as the example found in a rich grave in Rome (No. 452) could also have been used to erase writing or prepare papyri (Dickey 2012–2015 II, 50).

Writing Surfaces for Ink

Ink could be used on a range of materials, notably papyrus and wooden leaf-tablets, but also pottery sherds. Papyrus, grown in stagnant water along the Nile, was worked into a writing material of differing quality in a process over which there is still some debate (see Pliny, *Natural History* 13, 74–82; Bülow-Jacobsen 2009, 4–10; Lewis 1989). Papyrus sheets were then pasted together to form a roll (*volumen*), the symbolism of which is discussed further in Chapter 8. Such rolls were usually ca. 20–30 cm in height and could be of considerable length; they had a tendency to fray at the lower edge, where they would rub against the reader's clothing, and they could be fragile (Bülow-Jacobsen 2009, 21; Capasso 1995; cf. Birt 1907). Nevertheless, such scrolls could be of considerable age; in the Villa of Papyri many scrolls are between 120 and 160 years old, and some are as old as 300 years (Houston 2014, 120). A label or tag allowed for the identification of content even when scrolls were rolled up (Dorandi 1984; Houston 2014, 9–10).



2.6. Reconstruction of a container for scrolls (from a sculpture in the Lateran Museum, after Fünfschilling 2012, fig. 1) and a monument from Juvanum/Torricella Peligna (by kind permission of Chieti Museo Civico (Inv. Nr 27194) and the Deutsche Archäologische Institut (D-DAI-ROM-60.413)).

Papyrus scrolls were stored in cupboards or on shelves or, if they had to be transported, in specialised containers called *capsae* or *scrinia* probably made from wood, which are frequently depicted on tombstones (Figure 2.6; Fünfschilling 2012, 166, fig. 1; Houston 2014, 180–188; Pugsley 2003, 95–99). On an early Roman monument from Juvanum/Torricella Peligna (Chieti) in Italy, an inkwell with its pen is shown on top of such a container (Schäfer 1989, 304, pl. 51). While the organic scroll containers obviously have a poor chance of survival, a number of the distinctive lock plates used to secure their contents have recently been recognised (Feugère 2006). These curved plates are of strikingly similar shape and decoration, suggesting specialised production centres; to the small number of examples from Spain, Slovenia, Austria and France we can now add a very similar lock plate said to be from Colchester (Hattatt 1989, 457, fig. 22, No. 132) and another from Pompeii (Stefani 2003, 128–129).

Parchment or vellum is made from cleaned and dried, but not tanned, animal skins (mainly of sheep/goat or calf) that were stretched and treated with alum and chalk (Bülow-Jacobsen 2009, 11). Parchment pieces could be sown together into rolls (like papyrus), but more commonly were gathered in codices (like wooden tablets). Both papyrus and parchment only survive under exceptionally dry conditions, notably in Egypt.

During the Roman period, there was a shift from the book roll to the codex (shaped like the books familiar to us), which can be made from sheets of papyrus or parchment; the reasons for this change have been much debated and may relate to ease of use and reference, economic considerations or the specific Christian cultural context. What is not in doubt is that, while first attested in the early second century AD, the format does not become dominant until the fourth and fifth centuries (Roberts and Skeats 1983; cf. Blanchard 1989; Turner 1977).

Wooden leaf-tablets are now most strongly associated with Vindolanda but are in fact known from a number of British sites (Chapter 3, Figure 3.1; Bowman and Thomas 1994, 2003; Bowman 2003; Bowman et al. 2010; Tomlin 1998; Tomlin 2011, 146–149³). These leaf-tablets are thin wood shavings, normally between 1 and 3 mm thick, cut from locally available trees such as alder, birch and oak (Bowman 2003, 9). Two recent finds from the Bloomberg site in London were made from willow and alder (Tomlin 2016, 276–283). Once trimmed into rectangular sheets and probably prepared with a rubbing of beeswax, they could be written on using ink. The leaf-tablets are often folded to protect the writing. The Vindolanda tablets in particular provide fascinating insights into army life, ranging from military logistics to private correspondence. They also attest to a large number of individuals being able to write, with many possessing a good command of Latin. Leaf-tablets appear to have been used for quite ephemeral purposes, ranging from letters to drafts and lists (Pearce 2004, 44). It is very difficult to assess the price of writing materials such as papyrus or wooden tablets although it may be assumed that, in the north-western provinces, wax tablets made from imported wood and papyrus were more expensive than thin leaf-tablets made from local wood (e.g. Skeat 1995). We have already seen previously that in addition to writing addresses and labels on the exterior of wax tablets, ink could be used to write on the recessed area, in effect reusing the surface (Reuter 1999; Speidel 1996, 17; Turner 1956). In some cases wooden tablets were coated with whitewash to make writing smoother and more visible (Cribiore 1996, 65–69).

Pottery sherds are another medium that could be written on in ink, usually to record receipts, accounts, short notes and lists but also letters and school exercises (Bagnall 2011, 117–137; Horster 2015). Ostraca are characteristic of everyday writing in the Graeco-Roman East, where abundantly available pottery provided a cheap alternative to papyrus for ephemeral texts that could be discarded after a short time. Numbers have increased significantly with better excavation and recording techniques, providing important insights; thus the *ostraca* from the Roman fort at Bu Njem in Tripolitania provide good

³ And see Franklin 2002, 35–45 on the birch-bark letters from Russia, which were scored by a stylus rather than written on in ink.



2.7. Funerary monument of L. Cornelius Atimetus (by kind permission of the Vatican Museum, Rome, Inv. 9277).

examples of the official and private texts that are known on this material (Marichal 1992b).

Writing Sets in the Roman World

While we have reviewed writing equipment in the separate categories it is traditionally studied in, combinations of objects were, of course, employed together in ancient writing practices, and the instruments used to write in ink were frequently kept and transported in leather cases with those required to write on wax.

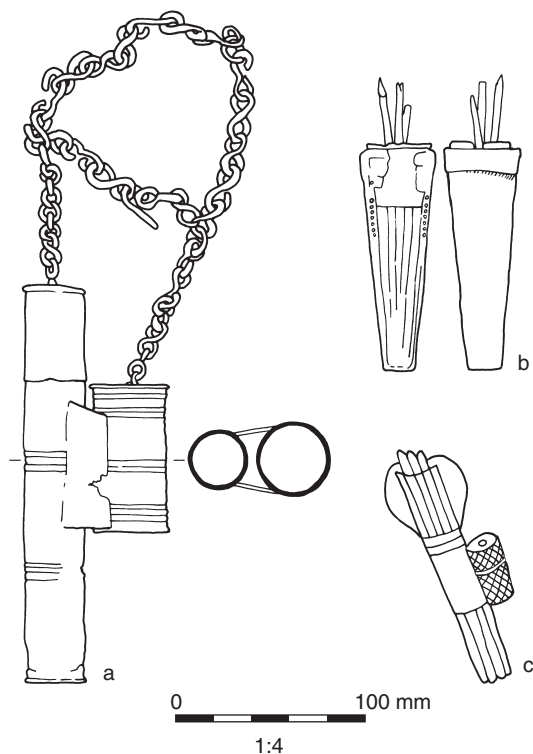
On the funerary monument of L. Cornelius Atimetus (depicting the display of a toolmaker and dated to the second half of the first century AD) we can make out writing cases containing double inkpots and wax spatulae as well as five long circular objects; the latter are styli and pens in their cases (von Boeselager 1989, 227–228, fig. 14). The toolmaker also produced the pen knives discussed previously (Figure 2.5d).

Four burials from Roman Germany contained inkwells and styli, with the latter apparently slotted into two horizontal protrusions on the inkwell, where they were originally held in a leather carrying case; this is likely to have also

contained pens made from organic material (Figure 5.10c; von Boeselager 1989, 227; cf. Birt 1907, 219–220; Speidel 1996, 17–18, fig. 3). There are seven known examples of this distinctive inkwell type. Other types of inkwell could also be carried in a leather case together with other writing equipment. This is attested by surviving traces of leather at Nijmegen and Meerbusch-Ossum (von Boeselager 1989, 224); actual leather cases for writing equipment survive from Egypt (Figure 2.8b; Fünfschilling 2012, fig. 31). The late Roman Lauricius grave monument from San Lorenzo in Rome shows a leather case for pens and styli as well as an inkwell fastened to it by what appears to be a leather strip (Figure 2.8c; von Boeselager 1989, 233, fig. 25). Very similar portable leather writing sets existed in the medieval period (Willemsen 2008, 76–79, figs. 51–54).

In addition to these carrying sets, which are quite flat and often widen towards the top, simple long cylindrical containers of either leather or metal could also be used to carry pens and styli. Examples are known from Szőny/Brigetio (a double tube for two styli: Bilkei 1980, 79, Nos. 70–72, pl. I–II) and Taraneš. The latter is a large cylindrical container attached to an inkwell by a chain and two obliquely cut copper-alloy sheets (Figure 2.8a); this still contained a stylus and once perhaps also held parchments (Ivanovski 1987, 83, fig. 6.3). Other examples are listed in Fünfschilling (2012, 184–185, fig. 32). The two tubular objects held in the left hand of a legionary soldier from Mainz are interpreted as containers for pens rather than scrolls (Speidel 1996, 58–59, fig. 27).

The price edict of Diocletian gives a price in AD 301 of forty denarii for a leather *theca*, twice the cost of a purse, but a third less than a belt (von Boeselager 1989, 235–236; Graser 1940, 355). Such writing sets are thus not hugely expensive but their depiction in a variety of contexts suggests that their possession and display were important signs of status (see Chapter 8).



2.8. (a) Copper-alloy case for styli and possibly parchments from Taraneš (after Ivanovski 1987, fig. 6), (b) leather writing set from Egypt (after Fünfschilling 2012, fig. 31) and (c) writing set depicted on the Lauricius grave monument, San Lorenzo Rome (after von Boeselager 1989, 233, fig. 25).

CONCLUSION

This chapter has introduced the material basis of writing in the Roman world, describing a number of artefacts of differing function and of differing materials. It is clear that taphonomic factors, in other words the likelihood of survival and recovery of, for example, wooden tablets, papyrus and iron styli, have a major impact, as has the difficulty of recording and quantifying what can be very large datasets (Bagnall 2011; Häußler and Pearce 2007, 229).

Considering the wide range of writing materials and tools raises interesting questions about how different media co-existed in Roman society. The writing surfaces of ostraca, wooden leaf- and wax tablets, papyrus and parchment were not only associated with different writing practices and tools but also had differentiated uses. In many cases these probably simply reflected cost and availability, with imported papyrus almost certainly more expensive than locally available wooden leaf-tablets in Britain. Low cost and an expectation of only short-term use and frequent disposal is evident from many of the texts written on ostraca; similarly leaf-tablets usually contain quite ephemeral texts such as lists and copies of letters. By contrast, wax tablets were usually preferred for more formal purposes such as legal and official documents (Pearce 2004, 44). Their greater legal significance and possibly their religious associations may well have resulted in these objects being used, stored and disposed of very differently to leaf-tablets (Meyer 2004). Differences in use and symbolic association may also affect the writing tools. I have argued previously, for example, that the spatulae used to apply wax to writing tablets may have been used differently in Roman Britain depending on their material and decoration. Thus plain iron wax spatulae appear to occur mainly on military and urban sites, whereas those that have a handle in the shape of the goddess Minerva come mainly from rural, villa and smaller town sites in the south of the province (Eckardt 2014, 187–193).

We will discuss in Chapter 7 whether or not writing equipment generally is really biased towards major urban and military centres. However, it is already clear that only detailed contextual analysis can begin to untangle the specific cultural and symbolic practices associated with different writing equipment. Part II of this book will do this for inkwells, which provide insights into the use of ink on wooden tablets, papyrus and parchment and therefore by extension into literate practices. Chapter 3 will consider in more detail how writing equipment was used and the interplay between material, technology and practice. While some iconographic evidence will be considered to explore these issues, a more developed discussion of how writing equipment may have served to signal status and identity in funerary contexts can be found in Chapter 8.

THREE

LITERACY AS TECHNOLOGY AND PRACTICE

‘Writing has never been and cannot be separate from technology’; in fact, it is technology (Haas 1996, x). The relationship between the cognitive activity of writing and its various tools is so habitual that it is often ignored, with regard to both ancient and modern writing implements. In order to record and measure the ways new technologies shape writing processes, Haas (1996) studied the effect that the introduction of computers since the 1980s had on writers. Computers have sometimes been conceptualised as being part of a progressive revolution, but while many writers acknowledge the benefits of working digitally, there are aspects of writing (notably planning and proof-reading) that many still prefer to carry out in hardcopy. This may be because the technology is not amenable to the preferred human process; for example, it can still be difficult to render mind-maps or diagrams for planning on the screen or writers find it difficult to retrieve and edit information when reading on a screen (Haas 1996, 51–133). This research on practice and technology shows that writing technologies affect thinking processes in subtle but measurable ways and the same is likely to be true for the Roman period. A good ancient example of the interplay of artefact design and the written product is the observation by Quintilian (*Institutio Oratoria* 10.3.32) that the width of a wax tablet may affect the length of a student’s composition (Small 1997, 141–145). The complex interplay between texts and the ways in which they are both created and used is also evident in the often humorous ways in which

books and letters are shown in Pompeian graffiti (Kruschwitz and Campbell 2009). In general, ‘know-how’, an understanding of the modes of operation of any given object and technology, is a powerful form of cultural knowledge; such knowledge might consist of very detailed aspects such as the correct way of sharpening a pen or more generally the skill of writing, and how to display it (Chapter 8).

As a final point it is worth noting that all technologies are socially constructed; design is not inevitable or self-determined and we should always look for the social context of technological change (e.g. Bijker 1997; Dobres 2000). Thus Haas (1996, 137–165) analysed the ways in which new computer interfaces were developed and finds that ‘common sense’ functionality and ‘best design’ were in fact shaped by often conflicting views of individual agents. Other important factors were the persistence of traditions and conventions, even if they had become functionally meaningless. The same may well be true for ancient design, with writing styles that may seem uncomfortable or impractical to the modern eye persisting for centuries. This chapter is concerned with who wrote what in the Roman world generally and with the physical practice of using writing materials. Some iconographic evidence will be analysed to examine how and where the writing equipment described in the previous chapter was used.

WHO WROTE IN THE ROMAN WORLD?

We can distinguish between ‘1) writing as handwriting, the physical act of tracing characters of words; 2) writing as copying and taking dictation, the recording of others’ words; 3) writing as crafting lexical, syntactical, and rhetorical units of discourse into meaningful patterns; 4) writing as authoring or producing an independent and original text for a specific audience and purpose’ (Criatore 1996, 10). More broadly, we have to bear in mind that writing is always both an individual act and a cultural practice (Haas 1996, xii).

In the Roman world, specific forms of writing were usually associated with a particular class of person; thus, composition was very much an elite occupation, while copying and note-taking were usually carried out by secretaries and scribes. I am not concerned here with the nomenclature, which included the stenographer (*notarius*), copyist (*librarius*) and secretary (*a manu*) (Horsfall 1995; Johnson 2004, 159; Joshel 1992, 85, footnote 50, table 3.2; McDonnell 1996, 483; Parkes 2008, 4–5; Starr 1991, 339; Treggiari 1969, 148–150). These individuals were often slaves or freedmen (Häussler and Pearce 2007, 219), and it has even been suggested that writing was routinely associated with slaves, not just in the practical sense of slaves as secretaries or copyists, ‘but also ideologically in that writing is associated with the body, with submission to an externally imposed system of constraints, and thus treated as socially inferior to

the free exercise of the voice' (Habinek 2009, 122; cf. Christes 1979; Habinek 2005; Parkes 2008, 3–5).

Others have stressed that the scribes, secretaries, copyists and administrators of elite families were highly valued. These individuals often had considerable skills and acted not simply as note takers but as editors and contributors (Richards 2004, 59–80; Small 1997, 169–175). There is no doubt that scribes yielded significant powers; for example, in classical Greece, officials called *mnemones* (literally remembrancers) were clearly more than clerks (Carawan 2008; Thomas 1992, 69–70). The bureaucratic needs of the Roman Empire created a new elite, which, in addition to reading and writing, held considerable legal or administrative knowledge (Bowman and Woolf 1994, 10; cf. Jones 1949; Kelly 1994; Woolf 2000, 891–892). The role of *scribae* in particular has been extensively analysed, highlighting the considerable power these men exercised because they acted as permanent staff to annual magistrates and thus, in effect, controlled proceedings (Jones 1949; Purcell 2001; Stauner 2004, 143–147; Treggiari 1969, 153–159). There was considerable upward social mobility, and within the *ordo scribarum*, an elaborate hierarchy clearly existed; these men also proudly displayed their status on their funerary monuments (Kaster 1988, 47–48; Purcell 2001; Wrede 1981). Similarly, the *librarii* had their own guild, although we should note that the term refers both to scribes and booksellers (Rawson 2003, 193; Paulys Realencyclopädie der classischen Altertumswissenschaft, 138–139). While the elite written sources that mention scribes and copyists are usually ambivalent and dismissive, in terms of self-representation this group of literate individuals clearly took pride in their achievements. On the other hand, in Roman Egypt there were officials acting as scribes to villages who appear to have been illiterate themselves. Thus, the second-century Petaus from Karanis could not write himself but was able to carry out his administrative and private duties with the help of relatives and scribal staff (Hanson 1991, 171–174). Last but not least there were of course also military clerks, who dealt with the vast amount of paperwork created by the Roman army, as so vividly illustrated at Vindolanda (Bowman 2003). Being literate offered opportunities for advancement and there is much debate about the kinds of training provided for recruits (Haynes 2002; Phang 2007; Speidel 1995; Stauner 2004). Amongst the military clerks (also called *librarii*: Harris 1989, 218; Stauner 2004, 132–138) are some obscure titles, which may bear a literal relationship to writing equipment. Thus the term *canalicularius* for one of the clerks in auxiliary units may be derived from 'quill-pen', while *cornicularius* may refer to an 'ink horn' rather than a ram's horn as a symbol of military valour (Austin 2010, section 6.1; Daremberg and Saglio 1887, 1509–1510; Maxfield 1981, 97–99; Rankov 1999, 19–20, footnote 31; Stauner 2004, 118–124 and 125–126). In other cultures, such as that of Roman Judea, the special power and status

of scribes was derived not just from their expertise and knowledge but also from the very act of writing sacred texts (Goodman 1994).

Secretaries usually worked from dictation, which enabled elite Roman to write (in the sense of composing) during travel, meals, baths and illness, especially the commonly mentioned eye problems (Horsfall 1995). Some scribes offered their services in public spaces, as depicted on a wall painting from Pompeii (García y García 2005, 116, fig. 73–74). Scribes copied texts for official purposes, for sale and for gift exchange (Kleeberg 1969, 22–67). I am not concerned with the question of whether such copying was done by viewing an exemplar or by dictation, as indicated by aural/phonetic or visual scribal errors respectively (Johnson 2004, 39; Skeat 1956; Small 1997, 169–175) but for book rolls, in particular, the often high general standard of the copying should be noted. Diocletian's price edict indicates that scribes were paid by number of lines (twenty-five denarii for 100 lines in best script, with records and contracts priced at ten denarii: Graser 1940, 342–343). On the other hand, it was well known that scribes focusing on speed made mistakes. 'If some things in these pages, reader, strike you as too obscure or doubtful Latin, the error is not mine. The copyist (*librarius*) did the damage in his hurry to tell out the number of verses for you' (Martial, *Epigrams* II.8; cf. Parkes 2008, 4). Poor copies were a common problem for patrons and authors and also for booksellers, who were sometimes accused of displaying as advertisements sections of a scroll that were far superior to the remainder (White 2009, 277–278). On the other hand, detailed analysis of nearly 400 literary book rolls from Roman Egypt demonstrated the highly accurate layout and design of such rolls, suggesting professional book production by highly trained scribes (Johnson 2004).

There is some evidence for female scribes, secretaries and copyists, who appear to have been drawn from the same social class as their male counterparts – that is slaves or freedwomen – and who carried out much the same roles, though often working for upper-class women (Haines-Eitzem 1998, 634–640; Treggiari 1976, 77–78). We should also be wary of making assumptions about the age of scribes as there is evidence that the role of copyist and 'low-level accountant' could be performed before the individual reached the age of fourteen, suggesting that training, perhaps in the form of apprenticeships, began well below that age (Bérenger 1999 vs. Kinsey 1979; Rawson 2003, 192–193; see Chapter 10).

While it is true that the copying of manuscripts was a task often carried out by slaves or freedmen and freedwomen, perhaps the pendulum of debate has swung too far, emphasising the lower status associations of writing. McDonnell (1996) argues convincingly that elite Romans did write themselves, especially in private correspondence and when creating original literary works. It was an epistolary courtesy to sign off letters in one's own hand and, indeed, to physically write letters to close friends and family, and those of high status

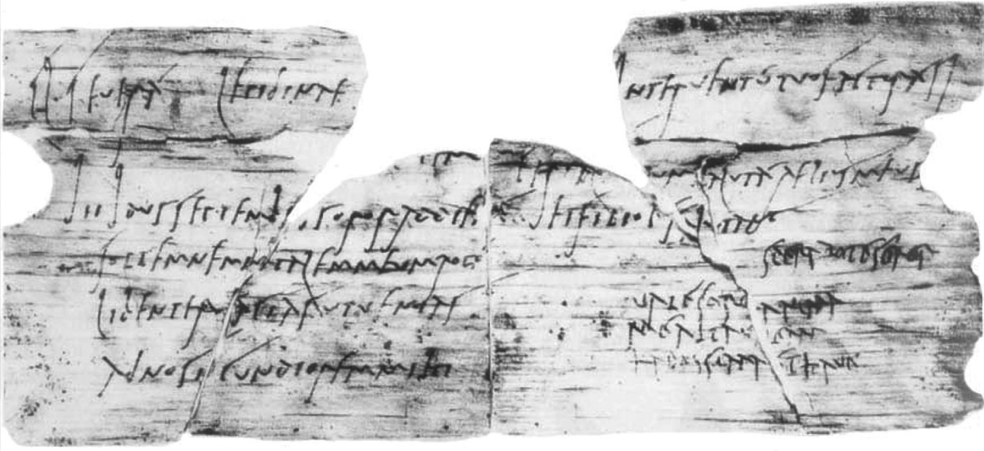
(Hanson 1991, 166; Horsfall 1995, 51; McDonnell 1996, 474–475). As we will see (Chapter 9), elite women also wrote in their own hand (McDonnell 1996, 476–477). It has previously been suggested that the handwriting style of the elite was often poor, but we will see that this is difficult to substantiate, as the handwriting style of an individual has been shown to vary and as different hands were used for different occasions and purposes.

FROM OBJECT TO PRACTICE: HOW AND WHERE WERE WRITING IMPLEMENTS USED?

There is some textual and archaeological evidence to explore how and where writing implements were used. Here, we will first consider the question of handwriting and materiality, and then turn to the embodied experience of writing through an analysis of posture. That writing was a physical experience and a task involving the whole body is well illustrated by a ninth-century source describing how ‘three fingers write, two eyes see, one tongue speaks, the whole body toils’ (Clanchy 1993, 116; Parkes 2008, 66).

Frustrations about the available writing instruments very similar to those of Dickens previously mentioned were also expressed by ancient writers, for example by Cicero in a letter to his brother (*The letters to his friends* 2.15b.1): ‘For this letter I shall use a good pen, well-mixed ink, and ivory-polished paper too. For you write that you could hardly read my last’. Another example comes from a mid-first-century-AD satire by Persius Flaccus (*The satire* 3.10–3.14, 3.19): ‘We now take up our book, and the two-coloured parchment, well cleansed of hair; some paper too, and the knotty reed-pen. Next we complain that the ink is thick and clots upon the pen; that when water is poured in, the blackness disappears, and that the tube sprinkles the diluted stuff in blots upon the paper.... How can I work with a pen like this?’ (both sources cited in Head and Warren 1997, 468). The distraction of dipping the pen into the ink at regular intervals is thought to be one factor that contributes to scribal errors (Head and Warren 1997, 468; cf. Reynolds and Wilson 1991). Thus Quintilian (*Institutio Oratoria* 10.3.31) suggests: ‘It is best to write on wax owing to the facility which it offers for erasure, though weak sight may make it desirable to employ parchment by preference. The latter, however, although of assistance to the eye, delays the hand and interrupts the stream of thought owing to the frequency with which the pen has to be supplied with ink’ (cf. Horsfall 1995, 49).

The richer surviving evidence for the medieval period has meant that much research has been carried out on the handwriting *ductus* of individual scribes up to the sixteenth century (e.g. Parkes 2008), and similar work for the Roman period not only examines script styles but also involves the close examination of movements of the pen (Swift 2017). The *ductus* describes the number of pen strokes, their sequence and direction; careful modern observation can



3.1. Vindolanda tablet 291.2 showing the different handwriting styles of a scribe and Claudia Severa (by kind permission of the Vindolanda Trust).

distinguish different writers and assess their relative competence. At Vindolanda, a comparison of letters characterised by separate component strokes with those showing more rounded strokes and serifs was used to suggest that some of those who wrote the ink leaf-tablets learnt to write with a stylus, while others may have learnt with a pen; the former may be more typical for those who acquired the skill as children (Austin 2015).

Most people wrote with their right hand, but careful analysis has identified a left-handed writer (Octavius) on a Vindolanda leaf-tablet (Bowman 1991, 129). The Roman education system, such as it was (see Chapter 10), resulted in different handwriting styles, which could be laden with symbolic and official meaning. These styles included chancery, epistolary and bureaucratic styles; also often distinguished are book hands for literary texts and cursive hands for official, business and private documents. Sometimes different hands can be distinguished in the same letter, as in the birthday invitation from Vindolanda to which Claudia Severa added a short note (Figure 3.1). Skilled individuals were able to switch handwriting style depending on the content of the document (e.g. Austin 2010, section 9.1; Cribiore 1996, 6–8 and 97–118).

An individual's handwriting style was considered important; thus the emperor Augustus trained his grandsons to copy his own hand (Suetonius, *Divus Augustus* 64.5), and there were prizes for the best handwriting style amongst schoolboys (Austin 2010, section 9.1; Cribiore 1996, 115–116). Poor handwriting by a woman is jokingly compared to chicken tracks by Plautus in the comedy *Pseudolus* (Clark 2001; see Chapter 9). It has been suggested that the handwriting of elite males was quite poor, as they usually had scribes to write for them (Harris 1989, 249). However, it is actually quite difficult to judge handwriting; should we, for example, even compare the writing in

personal letters to highly trained and stylised scribal hands (McDonnell 1996, 471)? Handwriting also varied depending on the occasion, sometimes even within the same document (cf. Bowman 1991, 127). Criteria such as lack of uniformity, letter formation, stroke sequence and speed can be used to identify not just school hands but also ‘slow writers’, adults ‘with limited or faded writing ability’ (Cribiore 1996, 116).

Palaeographers have also paid detailed attention to aspects of writing practice other than handwriting style in a number of ways. For example, Turner (1977) recorded the physical shape and dimensions of codices and carefully reconstructs manufacture in terms of sheet size as well as the cutting and gluing together of sheets of papyrus as indicated by joins (*kollesei*). More recently, Johnson (2004) showed that measurements such as column width or margin size within a literary scroll were highly standardised, illustrating the care and craftsmanship of the professional scribes that produced them (cf. Johnson 2000, 612). At the other end of the competency spectrum, features such as vertical and horizontal rulings and lines to help with layout and a variety of mistakes (from slips of the pen to grammatical errors) as well as distinct hands have been used to identify learners and school exercises (Cribiore 1996). We may note here that research on graffiti has also recently begun to focus much more on materiality (both in terms of writing materials and surfaces) and on their spatial and temporal context (Baird and Taylor 2011; cf. Keegan 2014b). Similarly, careful consideration of materials and how they interact with the practice of writing has been given to the Vindolanda writing tablets, exploring whether text was written across or along the grain and how columns were arranged (Bowman 1994, 111–119).

What about the bodily experience of writing? What is known about ancient writing postures in particular? In the Roman world, the scribe would stand for note-taking, holding the writing surface in his left and the stylus or pen in his right hand. For the copying or writing of longer texts, scribes worked seated on benches, chairs or stools, with the writing materials balanced on their knees (Parásoglou 1979, 1985). One leg was lower than the other, creating tension for the scroll and making writing more comfortable; the pen was normally held by three fingers: the thumb, index and third finger.

As scribes had to dip the pen into an inkwell usually placed to their left while writing with their right hand and supporting the scroll only by their knees, there must have been a high potential to smear and stain clothes. I have found no literary reference to this, but a room in Dura Europos interpreted as a clerical office on the basis of graffiti that included two Latin alphabets had on its west wall ‘a great many smudges of ink, as if one had used the plaster for wiping pens and fingers’ (Austin 2010; Rostovtzeff 1934, 152).

Both the archaeological and the iconographic evidence show that writing equipment for ink and wax was carried as sets and that these sets could be



3.2. Writing set held under the left arm on a monument from Maria Saal (Austria; by kind permission of Ortolof Harl).

used ‘on the go’ as well as when seated inside a building. When used standing and for rapid note-taking, the writing sets were usually held in the left hand or under the left arm, leaving the right free to write. Two grave monuments from Austria show a man writing with his right hand, supporting the scroll or codex with his knee, which is resting on a box containing scrolls; in the Maria Saal (Austria) example, he is holding the carrying case between his left arm and breast (Figure 3.2; von Boeselager 1989, 230, figs. 18–19; Diez 1953, fig. 3; Schaltenbrandt Obrecht 2012, 27–30, fig. 39). A tombstone from Bourges (France) shows a man holding an inkwell in his left and styli or pens in his right hand; he has a prominent bracelet on his right arm and

appears to wear a hooded cloak (Espérandieu 1908, 337–338, No. 1471). Two monuments from Dacia show men with what may be a writing set fixed to their belts on their right side while holding a scroll in their left; there is a signet ring on their left hand (Bajusz 2004, figs. 3–5). We will examine in Chapter 7 whether the funerary evidence collected during this project provides any information as to which side of the body inkwells and writing sets were placed in graves.

High status men had a servant to hold the writing equipment for them, as in an early third-century monument from Strasbourg (Figure 8.4; Hergott 2003, 8). The central figure is writing with his right hand while balancing the scroll on his knee; the servant is holding the theca with multiple pens in his left arm. Unfortunately, the relevant area is damaged, but it appears that the slave holds the inkwell in his right hand, possibly balancing it on his master’s left knee (Parássoglou 1979, 10–11, footnote 18; Small 1997, 153).

Writing could take place in spaces dedicated to this purpose. *Scriptoria* are known from Bu Njem and Qumran, and in the latter cases, benches and desks survived; three inkwells, including one metal example (No. 481) are said to have been found there (Khairy 1980). Careful analysis of their location and dimension suggests that the tables were not used as writing tables, but to set

out exemplars and writing materials while the scribes sat on benches and wrote on their knees (Rebuffat 1975, 197–204, fig. 4, pl. LIX–LXI; cf. Clark 1963; Metzger 1968, 134–137; Small 1997, 150–155). While not using a table to write on seems counterintuitive to the modern viewer, the visual evidence clearly shows that desks were not used until the very late Roman period (Houston 2014, 199–203; Metzger 1968). If stands are attested in the Roman period, they hold book rolls for reading (Knauer 1993, 18–28).

There is much better documentation for the practices of medieval writing, as evangelists and saints are frequently depicted as authors and scribes (Clayton 2006; De Hamel 1992; Parkes 2008, 57–61; Pugliese Carratelli 1997; Sharpe 2006). It is with such early medieval depictions of the Evangelists that we begin to see the regular use of stands or tables for writing on; incidentally these images often depict an ink horn or pot that can be held in the left hand (Colour Plate 3.2; Metzger 1968, pl. XI, XII and XVa). This shift towards tables may be due to the difference in status between slaves and monks, or the desire for larger codices filled with high-status calligraphy (Metzger 1968, 133). Stands and tables in more recent calligraphic practice are always sloping (Johnston 1962, 27–29) and the medieval and postmedieval images enable us to reconstruct pen angle, writing posture and writing implements in great detail (Sharpe 2006, 166). However, some of the earlier images, such as the Codex Amiatinus, produced ca. AD 700, but based on a lost sixth-century codex, draw closely on Roman models (Merten 1987, 310–316, figs. 1–5). In this example the writer still holds the manuscript on his knees while the nearby table is used for a large open inkwell, which has one compartment for red ink and one for black ink. Also shown are pens, dividers, styli, and a wax spatula (Colour Plate 3.1).

CONCLUSION

Both the burial and the iconographic evidence clearly suggest that objects associated with writing on wax and with ink, while representing different techniques for perhaps slightly different purposes (i.e. wills and other legal documents vs. personal letters and quick records), were part of one and the same toolkit for literate individuals (cf. Gaitzsch 1984, figs. 2, 3 and 5; Päffgen 1986, 176). This chapter has reviewed the evidence for the kinds of people who wrote routinely in the Roman world, and discussed the status of scribes in particular. There clearly were differences between how the elite viewed scribes and their self-perception, and there are interesting hints about age and gender patterns. The written sources give an insight into practices such as dictation, and the chapter has also discussed the bodily experience of writing. A number of routine processes such as the preparation and maintenance of the pens and ink and factors such as the overall

posture all combine to show how writing practices are part of the daily embodiment of literate identities. A brief survey of comparable late antique and early medieval sources demonstrates that these practices changed over time, and as we will see in subsequent chapters, there were also significant regional variations, for example, in the desire to depict writing on funerary monuments (Chapter 8).

PART II

A CASE STUDY

FOUR

MATERIALS AND PRODUCTION

Part II of this book focuses on a previously neglected category of writing equipment, the inkwell. This chapter first considers inkwell materials, comparing ceramic, glass and metal inkwells. Different materials had different functional qualities and probably values in the Roman period, just as they did in the Byzantine and medieval period (Schreiner and Oltrogge 2011, 102–103). For medieval Europe, in addition to ink horns made from cattle horn, which usually measured 8–10 cm and were either held in one hand or placed in a hole in a desk, there were cylindrical inkwells similar in shape to the Roman examples (Willemsen 2008, 68–71). These cylindrical medieval inkwells were commonly made from leather, but can occur in glass, ceramic, pewter and even silver. The leather inkwells were part of portable leather writing sets consisting of straps and a case for pens that is very similar to the *theca calamaria* discussed in Chapter 2; multiple leather examples are known from medieval London (Willemsen 2008, fig. 41). Data on the relative representation of materials are rarely available for the Roman period, but in, for example, Augst we may note sixty-one copper-alloy, eighty-four ceramic and seventeen glass inkwells (Fünfschilling 2012, table 3). The relatively good showing of copper-alloy inkwells may indicate that metal conveyed a practical advantage in terms of being less absorbent than clay, or that metal was a more prestigious material. Alternatively, the relatively good representation of metal inkwells may be a result of recording and publication biases, with ceramic and especially fragmentary examples underrepresented. The second part of this chapter considers

the manufacture of metal inkwells and the evidence of makers' stamps. To date no workshops have been identified, but together with the distribution data presented in Chapter 7, it is possible to at least suggest some possible centres of inkwell production.

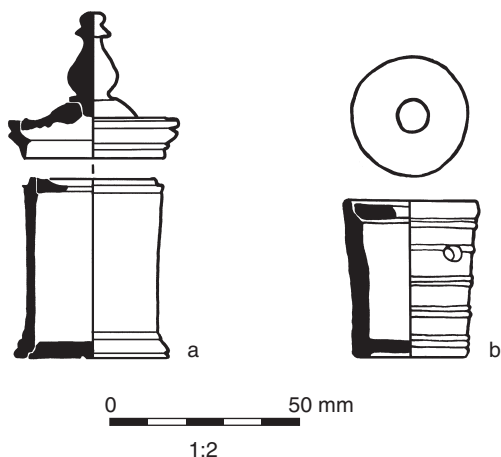
INKWELL MATERIALS

In the Roman period ceramic, glass and metal inkwells were known, and it is likely that horn, wood and bone inkwells also existed. A unique small alabaster vessel from Petra has been identified as an inkwell (Khairy 1980, 157, fig. 3).

Horn is the keratinous material covering the bony horn-core, from which it was detached by soaking; it is the cores that survive in the archaeological record, sometimes associated with other evidence for tanning and horn working (e.g. Allen forthcoming; Crummy 2017; MacGregor 1985). The evidence for horn artefacts is elusive as the material decays unless in waterlogged contexts, but in the medieval period horn was used for a variety of objects, including drinking vessels, lantern panels and combs, and the same is probably true for the Roman period. There are medieval inkwells made from cattle horns, but I have found no published Roman examples although it seems likely that horns were used in that way (Driel-Murray 2015, 1526 and pers. comm.; cf. Krüger 2002, 230–231; Metzger 1968, pl. XI, XII and XVa; Willemsen 2008, 68–71). Such ink horns may have had lids also made from organic material to prevent the ink from drying out. We have seen previously that a faint echo of the use of horns for ink *may* be reflected in the title of *cornicularius* for an auxiliary clerk, which was possibly named after a small horn worn on the helmet (see Chapter 3).

Wooden inkwells (with and without glass inserts) are certainly known from the early modern and medieval period (Badders 1995, 150–155; Krüger 2002,

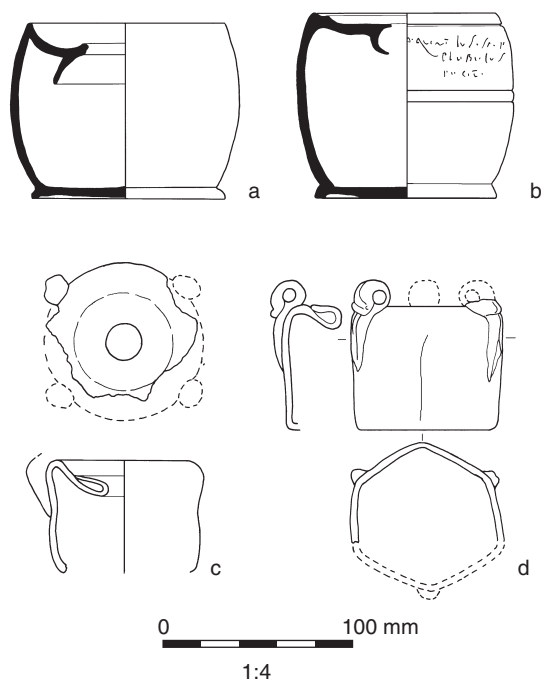
230) and there is plentiful evidence for boxwood vessels from the Roman period (Pugsley 2003, 66–84). None have been identified as inkwells, but such use cannot be excluded. Small bone vessels of similar shape, i.e. with more or less cylindrical bodies decorated with circular lines, may be inkwells or pyxides (Béal and Feugère 1983). Where such vessels have a baluster-shaped handle and closed lid, use as a general container seems more likely (Figure 4.1a); it is difficult to know how to interpret a lid such as the bone example from the Magdalensberg (Gostenčnik 2005, 74–76, pl. 15.1). A bone vessel from a



4.1. Bone 'inkwells' from Vaison and Brindisi (after Gostenčnik 2005, fig. 6).

grave that contained multiple copper-alloy inkwells at Brindisi is a much more convincing inkwell (Figure 4.1b; Cocchiaro and Andreassi 1988, No. 298; Gostenčnik 2005, fig. 6).

Ceramic examples were a cheaper and more common alternative to metal inkwells (Figure 4.2; e.g. Willis 2005 and Monteil 2008 on Samian inkwells from Britain; Božič and Feugère 2004, 36, on Samian and glass inkwells from France; Bilkei 1980, 68–69, on ceramic and glass inkwells from Pannonia; Reggiani 1990, 70–71, figs. 67–70, on ceramic inkwells from Rome; Alonso et al. 2014, 183–185, on ceramic inkwells from Spain; Broneer 1935, 72, fig. 17, on ceramic inkwells from early Roman layers at Corinth; Khairy 1980 on ceramic inkwells from Jordan; cf. Eckardt 2014, 201–204). The most detailed study of ceramic inkwells, which also offers some quantitative and contextual analysis, is that of Willis (2005). His survey of Samian inkwells from Roman Britain analysed more than ninety examples distributed from Exeter in the south-west to Strageath in the north-east, with supply apparently peaking in the second half of the first century AD. Use of Samian inkwells is heavily biased towards military sites (37%) and major civil centres (39%), with much smaller numbers recorded from smaller towns and rural sites (Willis 2005: 103–107, table 2). As with metal inkwells, London is a major consumer, with 134 Samian inkwells now known from the site (Monteil 2008). In London, Samian inkwells appear to be absent from sites with solely domestic occupation, suggesting strong links with commerce and industry (Willis 2005, 183). In methodologically exemplary fashion, Willis (2005, 106, tables 1 and 3) also records absence from sites that produced other Samian vessels and notes occurrence in relation to sample size, which highlights the relative rarity of Samian inkwells and their association with military sites and major civil centres. Detailed contextual analysis further suggests specific associations with places where writing is likely to have taken place, such as the *principia* and *forum* respectively (Willis 2005, 110–112, table 4). Of course, new finds will add to the picture; thus recent work on the Whitefriars site in Canterbury identified a maximum of eight inkwells



4.2. (a) Samian inkwell (after de la Bédoyère 1988, fig. 44.11), (b) ceramic inkwell from Aquileia (after Gomezel 1994, fig. 1) and (c) and (d) glass inkwells from Colchester and Xanten (after Cool and Price 1995, fig. 7.11, No. 862/3 and Charlesworth 1984, pl. 105.3).

of form Ritterling 13 (five of them South Gaulish, three Central Gaulish), thereby filling an apparent gap in Kent on Willis' map (pers. comm. Joanna Bird). While perhaps more widely available than copper-alloy, glass and other ceramic examples, it must be stressed that Samian inkwells are still not very common. Thus on the kiln tallies from La Graufesenque *atramitari* (*atramentarii*) account for only 0.19 per cent of the total (Marichal 1988, 259), and it is only in exceptional cases, such as a Claudian shop from Vienne (Isère, France), that Samian inkwells make up 10.5 per cent of an assemblage (Božič and Feugère 2004, 36).

Ceramic inkwells in non-Samian fabrics are known from across the Empire, but not normally published in detail. Examples from Rome show a wide range of forms, mainly without handles and broadly bowl-shaped bodies with dished lids (e.g. Öllerer 1998, 138–140; Reggiani 1990, figs. 67–70). A large example from Aquileia is of similar shape to Samian inkwells and has an incised maker's name – A(ulus) Quintius Sp(urii) f(ilius) Plebeius fecit; this is probably of first century AD date (Figure 4.2b; Gomezel 1994). A large ceramic inkwell in a Verulamium region fabric from London is wheel-thrown with a small lip (Cowan et al. 2009, 135, fig. 103, and 235, fig. 161). Examples from Jordan occur in a variety of shapes, and one inkwell from Queilbeh has a top decorated with a moulded wreath (Khairy 1980, 158, fig. 4a). No attempt has been made here to collect all non-Samian ceramic inkwells even from Britain, but we may note in passing that such inkwells may have been viewed as high-status items. Thus the cremation burial of an unsexed adult at Stanway (Colchester, Essex), dated to AD 50–60, contained a ceramic inkwell, a Hod Hill brooch, a pottery flagon, and the remains of a tray or box (Crummy et al. 2007, 197–201). Inclusion in this cemetery associated with the native elite indicates not just an early adoption of writing technology but also high status. An owner's graffito on a ceramic inkwell from London now in the British Museum similarly indicates that it was a valued possession (Cover image; Hobbs and Jackson 2010, 70, fig. 53). Writing equipment such as styli are known from rural sites (Hanson and Connolly 2002), but ceramic inkwells appear to be very rare (pers. comm. Tom Brindle); a possible example comes from the rural pottery production site at Bursea House in East Yorkshire (Halkon and Millett 1999, 157, fig. 5.38).

Glass 'inkwells' occur in the north-western provinces from the mid first century AD, continuing in use into the late first to early second century AD (Isings 1957, form 77; Cool and Price 1995, 116–117; Fünfschilling 2012, 194, pl. 9). In this form the rim is folded and flattened into the shoulder, leaving a small central aperture; small folded handles are applied to the top of the shoulder or top of the body and rim edge. There are usually three such loop handles, presumably allowing the vessel to be suspended, although that has not yet been demonstrated by wear marks. Most examples have a cylindrical

body, but hexagonal inkwells are known (e.g. the well-preserved example from Xanten: Charlesworth 1984, 294, pl. 105.3; Figure 4.2c–d). The base is concave. Glass ‘inkwells’ are made from bluish–green glass, which is usually quite ordinary and often rather bubbly. Complete examples are rare, and the diagnostic pieces are usually small fragments of the rim and handle. It was thought that numbers might increase once specialists were more familiar with the distinctive rim form, but this has not transpired, and it seems reasonable to conclude now that the form was indeed a rare one. In Roman Britain glass inkwells have a mainly southern distribution although three have now been found in Yorkshire; most come from urban and military sites (Cool and Price 1995, 116–117; pers. comm. Jennifer Price and Hilary Cool).

There is still debate about the function of this vessel type. The earliest discussion of this form sees them as inkwells, apparently largely because of the design of the top and its similarity to Samian examples (Griffith 1912; cf. Isings 1957, 93). However, it is by no means certain that these small vessels are inkwells. There is general agreement that the rim is designed to prevent spillage, but this and the small volume could point to a number of relatively valuable fluid contents. It has been noted that the handle shape is very similar to that of glass bath flasks, so it is possible that these vessels were unguent or oil containers (Isings 1980, 288; Shepherd 1986, 119). The suggestion that they could be hanging lamps (Isings 1980, 288) seems unlikely given their closed top; glass lamps of sixth century AD and later date are known from the eastern Mediterranean, but while they have similar suspension handles, the top is much more open (Stern 2001, 321–322). While some metal inkwells have a single handle on the side, the only metal form that has three small handles on the top are the enamelled vessels of Type Johns, and their identification as inkwells is not accepted here (Chapter 5). Finally, Mediterranean glass inkwells of different shape are known (Fünfschilling 2012, 194, fig. 47).

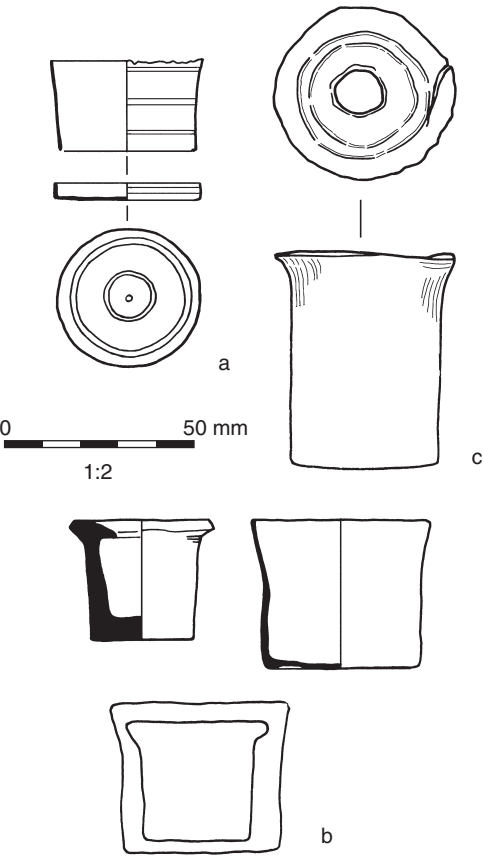
Finally, let us turn to metal inkwells. In this corpus, 440 metal inkwells, lids and possible inkwells from across the Empire have been collected, and Table 4.1 shows the relative proportions of materials encountered. To this the hexagonal enamelled vessels of Type Johns (1993) have been added. It is obvious that the vast majority of metal inkwells were made from copper-alloy, but there are some examples in silver, lead or pewter, as well as some types that utilised a combination of materials.

Silver inkwells are very rare, and in some cases we may in fact be dealing with pyxides rather than inkwells. In Chapter 5, I discuss in more detail a group of first-century Italian silver vessels that once held glass vessels (Calvi 1970, 1986). While these have been suggested to be inkwells, the closed lid suggests use as a pyxis (cf. Božič and Feugère 2004, 35). Where the lid is missing, no certain identification can be made, as in a silver container with a punched design from Augst (No. 442; Figure 5.23d).

TABLE 4.1. *Inkwell materials*

Materials	Numbers
Silver	6
Copper-alloy and enamel (Type Johns)	25
Copper-alloy, silver and niello, sometimes gold (Type Noll)	55 (46 certain)
Copper-alloy	369
Lead/Lead alloy	7 (+3)
Total	440 (+25 enamelled vessels sometimes thought to be inkwells)

A total of 440 inkwells and 25 enamelled vessels sometimes thought to be inkwells.



4.3. (a) Silver inkwell from Aquileia (after Božič and Feugère 2004, fig. 21), (b) lead inkwell from Mautern (after Pollack 1993, pl. 32, No. 237) and (c) pewter inkwell from Bath (after Sunter and Brown 1988, fig. 11, No. 33).

A silver inkwell with niello inlay (No. 450) was sold on the London antiquities market, and there is a lid from a hoard in Xanten (No. 451) with a similar design. An inkwell from Cologne (No. 69) and another from Nîmes (No. 159) are made entirely from silver (Oliver 1977, 171, No. 117; Božič and Feugère 2004, 35; Fiches and Veyrac 1996, 444–445, fig. 344, No. 7); a base fragment of what was probably a silver inkwell comes from a grave that contained other writing equipment at Aquileia (Figure 4.3a; No. 105; Feugère 2000). A silver vessel interpreted as an inkwell (No. 111) was found, with a bone stylus, in a grave of the first century AD at Tbilisi (Koster 2013, footnote 664). Silver is of course used for decorative effect on inkwells of Type Noll (Chapter 5), and a number of inkwells are described as being tinned, presumably to copy the appearance of the more valuable silver (e.g. Nos. 169–170, 285–287, 294).

Lead inkwells are also very rare. For example, a plain lead inkwell with a projecting lid, which was set within a cylindrical lead container, is known from Grave 237 in Mautern, Austria (Figure 4.3b; No. 113; Pollack 1993, 203, pl. 32). This is thought to be a female burial as a necklace

and bead bracelet were also found; the grave is dated to the second half of the fourth century AD. A late Roman plain lead inkwell, possibly widening towards the top, comes from a male burial in Zengővárkony (No. 114; Bilkei 1980, 82, pl. IV, No. 143). From Dunaújváros (Intercisa) comes a plain cylindrical lead inkwell (No. 112; Bilkei 1980, 82, pl. IV, No. 138) and there are two further unprovenanced Hungarian examples (Nos. 115–116; Bilkei 1980, 83). An inkwell from Cologne (No. 454) has a bowl-shaped body with a high shoulder, reminiscent of some ceramic forms; an inkwell from Vindonissa (No. 177) is described as having an interior lead lining. We will see in Chapter 5 that inkwells of Type Biebrich feel heavy and were probably made from heavily leaded bronze. Cylindrical lead vessels decorated with a portrait bust and inscription may be mistaken for Roman inkwells but are in fact early modern containers for medicines (Fünfschilling 2012, 186, fig. 37). Piranomonte (2016, 79) notes the similarity with inkwells of lead containers found with magical inscriptions and contents in the fountain of Anna Perenna in Rome, but these have closed lids and can be better described as pyxides (see Chapter 5). A pewter inkwell comes from the sacred spring at Bath (Figure 4.3c; No. 475). There are three lead inkwells probably of Hellenistic date from antiquarian excavations in Delos (Nos. 477–479; Deonna 1938, 255–256, pl. 81).

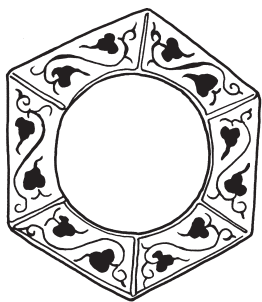
Some inkwells have copper-alloy bodies but lead lids. Grave XIX/3 from Intercisa contained a plain, copper-alloy cylindrical inkwell with a removable lead lid, which had a copper-alloy loop handle to which a chain was still attached (No. 158; Bilkei 1980, 81; Radnóti 1957, 221, No. 48, pl. XLI.4 and XLII.3). A copper-alloy cylindrical inkwell from a later Roman burial in Regensburg has a lid made of lead covered in copper-alloy (No. 145; von Schnurbein 1977, 197, pl. 110). A group of inkwells probably made in the same workshop are characterised by a body and outer lid made of copper-alloy and an inner, hinged lid decorated with a female head in relief that is made from lead (Chapter 5). This type is clearly distinct from those inkwells made completely from lead, as are examples in which a lead lid may have replaced an original copper-alloy lid. Overall, it is clear that most metal inkwells are made from alloys of copper, using a variety of decorative techniques that are discussed in the following section and in the typological discussion in Chapter 5.

METAL INKWELL PRODUCTION

This research has largely been based on published material, as it has only been possible to personally examine a limited number of inkwells. Details of the manufacturing process are therefore not a major theme in this book, although there is certainly scope for more work on this topic. In general, we can distinguish between copper-alloy examples that are cast and lathe-finished (such as Type Biebrich, Chapter 5) and those that are very thin-sided and probably



Not to scale

0 25 mm
1:1

4.4. Possible Roman inkwell from the antiquities market (by kind permission of TimeLine Auctions) and hexagonal lid from Xanten (after Gelsdorf 1995, fig. 9).

pressed over a form and then lathe-finished (Koster 1997, 88; cf. Mutz 1972). A number of copper-alloy inkwells have makers' stamps, and these have the potential to give more detailed insights into workshop organisation and the people who made inkwells. Many inkwells are very simply made and would not have required hugely specialised skills. Decorative techniques such as simple circular lines or even incised leaf or scale designs would have been within the repertoire of most bronze workers. By contrast, a small number of inkwells are clearly the products of highly skilled and specialised workshops; these are decorated with what has been described as niello decoration but is more accurately termed Corinthian bronze.

Inkwells of this type have decoration, usually a vine or running scroll, inlaid in silver or gold on the lid. The bodies can be decorated with figural motifs inlaid in silver, bronze or gold; in other examples, the body is plain, decorated with punched scales or circles, engraved tendrils or hatching (Type Noll, Chapter 5, Figures 5.5–5.7; Colour Plate 4.1). The manufacturing technique of these inkwells is complex, with the silver and gold design set into a keying (hollowed-out lines and cavities) cut into the copper-alloy (Descamps-Lequime 2006, 11, figures 9, 12 and 14; Noll 1988, 84). The effect of the design is much enhanced by the black background, which Noll, in his defining publication of the type, describes as niello. Niello, which has a black, slightly lustrous appearance and a glassy and fragile texture, consists of various kinds of metal sulphides that were usually prepared by using the metal of the object's

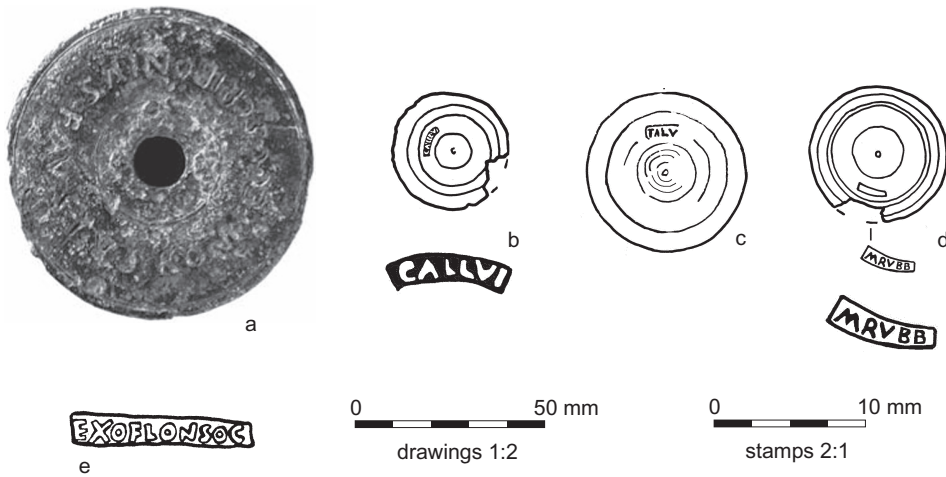
body (Bayley and Butcher 2004, 46; La Niece 1983). Niello inlay was used on a range of objects, including vessels, military fittings and brooches, especially in the Augustan to Flavian period (Deschler-Erb 2000). There is also a third century AD tradition in Gaul to decorate silver vessels and other objects with niello inlay (Baratte 1978; Martin-Kilcher 1985). The contrast between the predominantly silver body and inlaid niello decoration on silver vessels or on tinned brooches and belt fittings makes a pleasing visual contrast. There are two silver objects in my catalogue that have a predominantly silver body with small, inlaid niello decoration. One (No. 451) is a possible inkwell lid decorated with vines from a third-century hoard in Xanten, while the other (No. 450) is unfortunately without any context (Figure 4.4). The auction site describes it as of first-century date but both the shape and decoration suggest a third century AD date. A possible lid from the Saalburg (No. 65) may also belong to this tradition.

However, niello is best suited for such inlay, not for the creation of dark surfaces on vessels such as inkwell bodies of Type Noll (Descbler-Erb 2000, 383). Indeed, where scientific analysis of such inkwells has been conducted, the effect was created by an artificially produced black cuprite patina. Thus the black material on the Vaison inkwell (No. 62) is made from copper enriched with small quantities of gold and silver, the chemical reaction of which results in an artificial black patina (Colour Plate 4.1 and Figures 5.5–5.7; Descamps-Lequime 2006, 26). In antiquity, such a dark patina is thought to have been called Corinthian bronze and was only used on items of very high status (Descamps-Lequime 2006, 38; Giumlia-Mair and Craddock 1993). Inkwells such as the example from Vaison employed to great effect the contrast between the yellowish colour of the body (an alloy of copper and zinc, i.e. a brass), the black used for some of the drapery and wings and the reddish pure copper used for elements such as the drapery and chair legs (Descamps-Lequime 2006, 34). The double inkwell depicting Telephos now in the British Museum was the first to be subjected to scientific analysis, demonstrating that the precious metal used for the inlay (e.g. gold for the lid and silver for the body) is echoed in the way in which the copper was enriched to create the black patina in those two areas (Giumlia-Mair and Craddock 1993, 27–29, table 2). Even more recent analysis of a variety of objects has shown that artificially black patinated alloys were also used for fine inlays (Giumlia-Mair 2012; pers. comm.). It has been suggested that Type Noll inkwells were made in Italy, possibly Campania (Figure 7.1; Koster 1997, 88; Noll 1988, 87–89; cf. Deperoyt et al. 1986, 159).

Enamelling (that is the application of vitreous material to copper-alloy) is another important decorative technique, which occurs on mainly second-century objects, in particular vessels but also brooches and other objects (e.g. Bateson 1981; Butcher 1976, 1977; Henry 1933; Künzl 1995; Moore 1978). Centres of manufacture for enamelled objects have been much debated, with Belgium, northern Gaul, the Rhineland and Britain usually suggested (Bateson 1981, 19–20; Bayley and Budd 1998, 203–222; Breeze 2012; Exner 1939, 41–44; Hunter 2012, 98; Künzl 2012, 12–13). Hexagonal vessels decorated with enamel designs were thought by Johns (1993) to represent inkwells, but in my view are more likely to be containers for some other precious commodity such as incense and their manufacture is therefore considered in Chapter 5.

MAKERS' NAMES

Twenty copper-alloy inkwells have makers' stamps; these are set into the base of the inkwell, usually in a rectangular or slightly curved frame. These makers' stamps are to be distinguished from punched inscriptions like the one on the body of a Biebrich Type inkwell warning of 'bad red ink' at the Magdalensberg (No. 197; Öllerer 1998, 142–143, fig. 9, SH/5). Two highly decorated inkwells from Cologne have writing on the lid: one (No. 72) reads *SERVANDE VIV(AS)* – 'may you



4.5. Inscribed lid from Zurzach (by kind permission Vindonissa Museum, Inv. Nr. 193); stamps on inkwell bases from b = Ristissen (after Ulbert 1970, pl. 10, 148); c = Krefeld Gellep (after Pirling 1997, pl. 68); d = Aquileia (after Božič and Feugère 2004, fig. 21) and e = Nijmegen (after Koster 2013, pl. 42.30).

live, Servandus' (Figure 5.13b; cf. CIL XIII 10027, 262; La Baume 1975, 228–230, fig. 52), while the other (No. 70) is read as, LP IV LV HO MV – 'P(ublius) Iul(i) u(s) Homul(lus)' (Frei-Stolba and Lieb 2002, 4; CIL XIII 10027, 254). While the first is a dedication, the latter may refer to the maker or owner. Finally there is a dishd possible inkwell lid from Zurzach (Figure 4.5a; No. 376); an inscription is carefully cut into the upper side: C(aius) Scribonius Faustus Rom(ae) fec(it) – 'Caius Scribonius Faustus made this in Rome' (Frei-Stolba and Lieb 2002). The formula and name correspond with production in Rome, at the latest in the Trajanic period (Frei-Stolba and Lieb 2002, 5). There is also the occasional graffito; thus a possible inkwell lid at Augst (No. 342) has a scratched 'K' on the underside, which may represent an owner's rather than a maker's mark. We have already noted a ceramic inkwell from Aquileia that has an incised maker's name (A(ulus) Quintius Sp(urii) f(ilius) Plebeius fecit (Figure 4.2b; Gomezel 1994).

To my knowledge there has been no academic discussion of makers' stamps on inkwells; by contrast, makers' stamps on copper-alloy vessels have seen intensive study. Petrovsky (1993) in particular has examined the stamping of copper-alloy vessels, which appear to be a phenomenon beginning in the Augustan period and ending in the second third of the second century AD (Petrovsky 1993, 12, 181). He argues for production centres in Campania (Capua, distinguished by use of *tria nomina*, genitive and rectangular stamps); Northern Italy (Aquileia, distinguished by use of cognomen, genitive and rectangular stamps); Gaul (Lyon, distinguished by use of cognomen, nominative, fecit and curved stamp); and Lower Germany (distinguished by use of nominative and rectangular stamps). He also suggests that inkwells are especially associated with north Italian workshops (Petrovsky 1993, 182).

In the following sections I discuss makers in order of the frequency with which their products are attested. It is clear that only Socrates and Cornelianus produced stamped inkwells in quantity and that many of the other names that occur on inkwells are not those of major copper-alloy vessel producers.

Longinius Socrates

Socrates is a prolific maker who appears to have specialized in inkwells of high quality – I have recorded ten examples. For five there is no typological information (Nos. 90/1 Florence, No. 89 Crundale, No. 87 Althaldensleben, No. 77 Mintia); four examples are of Type Noll, characterised by the richly decorated lid (No. 35 Nijmegen, No. 36 Wijchen, No. 52 probably Carnuntum now in Munich and No. 75 Gomilice). Nijmegen No. 94 is very similar to No. 35 from the same site in terms of the details of the construction of body and lid, but lacks the elaborate lid decoration and has a plain body. This demonstrates that the same maker or workshop produced different inkwell types. This is also illustrated by the variation within the Type Noll lids on vessels stamped by Socrates (compare No. 35 Nijmegen and No. 36 Wijchen to No. 52 now in Munich and No. 75 Gomilice).

Two variants of the stamp are known: one variant ([E]X OF SOCR[...]) occurs at Crundale (No. 89; Frere and Tomlin 1991a, 51, No. 2415.34), at Nijmegen (No. 94) on an inkwell that has a lid decorated with a pacing horse and at Wijchen (No. 36) on a double inkwell with silver and niello decoration (Koster 1997, 90, Nos. 122 and 123); a curved stamp also occurs on an inkwell with silver and niello decoration of unknown provenance (but probably Carnuntum) now in Munich (No. 52; Noll 1988, 88–92, D7¹). More recently, an inkwell stamped OF SOCR was found in a grave in Gomilice, Upper Moesia (No. 75; Cvjeticanin 2004, 120–121, fig. 5).

The second variant stamp (EX OF LON SOCR) occurs on an inkwell with silver and niello decoration from Nijmegen (Figure 4.5e; No. 35) and two inkwells from Florence (Nos. 90–91; cf. Koster 1997, 89, No. 121). One of the Florence examples is EX OFLON SOC and the other EX OFLON SOCRA (CIL XI.2.1, 6720, 9a–b). SOCRA is attested on an inkwell found as an antiquarian stray find on the cemetery at Althaldensleben (No. 87; CIL XIII, 3.2.10036.83); this is also sometimes cited as Magdeburg (Koster 1997, 90). There is no further detail on an inkwell stamped by this maker from Mintia, near Deva in Romania (Cvjeticanin 2004, 120, footnote 16). The stamp of an inkwell found at Carnuntum (No. 88) was originally read as EX OF LON [SOC(crates)] but has since been re-read as EX OF(icina) COR (nelius) (Erkel et al. 1999, 75, pl. 51, No. 98.9; Jilek 2000, 98, footnote 14).

¹ Cvjeticanin (2004, 120–121) lists this as coming from Bad Deutsch-Altenburg.



4.6. Map of stamped inkwells (Map: Author).

The stamps indicate that these inkwells were made in the workshop of Longinius Socrates and, as the name Socrates was commonly used by slaves and freedmen in Rome, it is probable that this metalworker was a freedman of Greek origin, working in Italy based on the often rectangular shape of the stamp and the use of the genitive (Koster 1997, 89; cf. Petrovsky 1993, 182; Solin 1982, 250–251; Solin 2003, 263–264). The distribution map (Figure 4.6) shows how widely his products were traded and probably reflects ancient deposition and modern publication practices rather than a simple fall-off from the assumed Italian production centre. Crundale (No. 89) and Gomilice (No. 75) are broadly dated to the second century AD, while the rich graves from Nijmegen (Nos. 35 and 94) are both dated to the first two decades of the second century (Koster 1994, 249–250). Both the main variants of the stamp are attested on inkwells of Type Noll and the variation must relate to workshop organisation or chronology rather than type. Both curved and rectangular examples are known, possibly suggesting production in the Domitianic period in Italy prior to a move of the workshop to Gaul in the early second century AD (Koster 2013, 158).

Cornelianus

Two inkwells, from London and Carnuntum, are stamped by Cornelianus. The stamp of a very fragmentary inkwell found in the grave of an unsexed adult at

Carnuntum (No. 88) was originally read as EX OF LON [SOC(crates)]; see Longinius Socrates; Erkel et al. 1999, 75, pl. 51, No. 98.9) but has since been re-read as EX OF(icina) COR (nelius): Jilek 2000, 98, footnote 14). The perfectly preserved complete inkwell from London (No. 92) has the stamp EX OF COR (ex of[ficina] Cor(nelianus...)) (Frere and Tomlin 1991a, 51, No. 2415.33). Both stamps are curved. The pottery, lamp and a worn coin of Antoninus Pius found with it date the Carnuntum inkwell to the second half of the second century, while the London example is an undated antiquarian find. Petrovsky (1993, 151, No. C.31) has a Cornelius who stamped two pans, one found in Italy and one in Germany (both [C]ORNEL[I]) and worked in the Augustan period; this is therefore not likely to be the same maker.

C.SENT ANTH

One of a pair of inkwells said to be from Athens (No. 84) is stamped C.SENT ANTH or CSENT / ANTH (Noll 1988, 88). The double inkwell belongs to a type dated to the early to mid-first century, possibly made in Italy, with parallels found in Alba and Picenum (Nos. 83 and 85; Chapter 5, Figure 5.1d). A producer of copper-alloy vessels called Anthus stamped casseroles (ANTHVS F) came from Italy to Gaul and worked between ca. AD 55/60 and 80 (Petrovsky 1993, 144). Solin (2003, 1156–1158) also lists numerous examples of Anthus.

Calpurnius

A possible inkwell from Tibilis (No. 93) has the stamp EX O[FFICINI] CALPVRNI (Koster 2013, footnote 664). This is an antiquarian find without further contextual information; the maker is not listed in Petrovsky (1993).

GALLVS

A base fragment from Ristissen (No. 95) preserves one of the three original feet and the curved stamp GALLVS (Figure 4.5b; Ulbert 1970, 30, pl. 10, 148). It comes from a pit in the Claudio-Neronian auxiliary fort (Kemkes 2016, 322). From the same site comes an aperture cover with a poppy-headed knob of Type Biebrich; if these two elements originally belonged to the same inkwell, this would be the only example of a stamp on a Type Biebrich inkwell. The maker GALLVS is not listed in Petrovsky (1993).

MRVBBI

A copper-alloy inkwell from Aquileia (No. 106) has a stamp in a rectangular frame that was originally read as A. RVBBI (Maionica 1903, 363–364) but

is now thought to read MRVBBI (Figure 4.5d; Božič and Feugère 2004, 25, fig. 21; Feugère 2000). Rubbius may be the same individual who stamped a vessel handle now in Rome with CI M. RVBR///// (Petrovsky 1993, 293, GNR R. 05.01; cf. Bilkei 1980, 71); this maker may have worked in Italy (Petrovsky 1993, 164).

AM.VRSEIVS or A.MURSEIVS

A complete inkwell with a body decorated with three zones of hatching has a stamp that may read AM.VRSEIVS or A.MURSEIVS; there is some doubt about the first two letters and a possible punctuation between them but the maker may be either Urseius/Urselus or Murselus/Murseius (Bejarano Osorio 2014, 78–81 and pers. comm.; pers. comm. Francisco Javier Alonso López). The maker is not listed in Petrovsky (1993).

TALV

The base of an inkwell (No. 422) found in a cremation grave dated to the second half of the second or the beginning of the third century AD has a rectangular stamp, TALV (Figure 4.5c; Pirling 1997, 75, pl. 68; Pirling and Siepen 2006, 428). Petrovsky (1993, 303–304) has numerous late Flavian vessels of Gaulish origin stamped TALIO F but none of TALV.

EX•OFI•VM

The base of a crushed and damaged inkwell from a double cremation of late Trajanic date in Günzenhausen (No. 67) has the curved stamp EX•OFI•VM (Fasold 1987/1988, 209, fig. 7.10; cf. Fünfschilling 2012, 191, fig. 35.4). The outer lid is described as being decorated with a ‘wavy band’, probably indicating that the inkwell is of Type Noll.

OATΣM

An inkwell of unknown provenance now in Budapest (No. 285) is described as a silvered copper-alloy cylinder decorated with single and double lines, on the base of which are the Greek letters OATΣM. Unfortunately this stamp is not illustrated, and from the description it is not clear whether the letters are stamped or incised, just that they are set in a semicircle (Bilkei 1980, 83, pl. IV, No. 148).

CONCLUSION

In the Roman period, inkwells were made from a range of materials. These presumably reflected affordability, price and status but there were also functional

differences, for example, in how absorbent an inkwell was. Differences in shape and volume between ceramic and metal inkwells are explored in Chapter 6. It is not certain that the small glass vessels usually described as inkwells indeed had this function, or whether they were containers for another valuable fluid. In any case they are much rarer than both ceramic and metal inkwells. For the metal inkwells, it is very clear that copper-alloy was the preferred material; both the higher status silver and lower status lead are rare. Silver inkwells are clearly well-made prestige objects, usually from rich graves, but there is some potential misidentification with silver pyxides. Lead inkwells appear to be ad hoc products, presumably made when copper-alloy inkwells were not available. Most copper-alloy inkwells are cast or shaped using a form, and only have basic incised decoration, but the more elaborate decorative use of inlay and Corinthian bronze on inkwells of Type Noll illustrates the high standards that could be achieved.

We will see in the next section that while there are some clearly defined ‘types’, there are also many inkwells that can only be grouped very loosely. Even when inkwells are stamped by the same maker, there can be considerable variation in design. Thus not all the inkwells stamped by Socrates are of Type Noll, and even within that group there is variation in size and design detail although the inkwells clearly share other, functional features such as the handle mechanism. Inkwell stamps are relatively rare, and for many makers there is only one attested stamp (Figure 4.6). The names attested on inkwells are not generally those of well-known makers, but it seems likely that inkwells were produced by metalworkers who also made other vessels and objects. Some, like Socrates and others producing inkwells of Type Noll, were working to a very high standard indeed. Unfortunately there is no evidence for actual workshops, but sometimes decorative style, makers’ stamps or the distribution of a type can make it possible to suggest production locations. We have seen that inkwells of Type Noll are thought to have been produced in Italy, while for the enamelled examples, production in Gallia Belgica has been proposed (Depeyrot et al. 1986, 159; Hunter 2012, 96; Koster 1997, 88; Künzl 1995, 46; Petrovszky 1993, 182). There are also some types that seem to be made and distributed in the Rhineland, notably the Boeselager type and silver inkwells with hexagonal lids (see Chapters 5 and 7; Božič and Feugère 2004, 35).

FIVE

METAL INKWELLS IN THE ROMAN EMPIRE

It is not the main purpose of this book to establish a typology for metal inkwells, but given the size of the corpus, it is clearly important to order the material in some way. As with all attempts to divide ancient artefacts into archaeological typologies, there are some forms that are highly distinctive, but it was also necessary to place others into very broad groups (cf. Adams and Adams 1991; Bishop 1987). Into the ‘clear type’ category fall, for example, inkwells of Type Biebrich, Type Noll, Type Boeselager and Type Cologne. In all these cases we can recognise a high level of standardisation, and probably the output of a small number of workshops. On the other hand, there are other inkwells where it is only possible to identify loosely defined groups. For example, ‘early inkwells’ share many features with inkwells of Type Biebrich, but this small group shows considerable internal variation.

All inkwell types or general groups are presented here in roughly chronological order. I have placed together as miscellaneous all cylindrical inkwells without lids, as it is normally the lid or aperture cover that defines the type. At the same time, aperture covers have been grouped together; as we will see, it is unfortunately often almost impossible to distinguish between aperture covers for inkwells and other copper-alloy vessels such as globular bath flasks (*bal-samaria*). Apparently unique inkwells such as the example from Xanten (No. 219) are grouped together under ‘unusual inkwells’. Finally, there are a number of entries on the database that are too fragmentary or poorly illustrated to be assigned to a type or even group (‘Unassigned’ on the database and in

the catalogue). A number of objects that were described as inkwells in their original publications are now recognised as pyxides, lantern burners or box fittings. They are included here in a separate section to clarify their identifications and add to their bibliographies; they are described as ‘Not inkwells’ on the database and in the catalogue.

All recorded examples (490 entries) are listed in an online catalogue by type or group (<https://dx.doi.org/10.5284/1039969>); numbers given in the text refer to the individual catalogue entries, which also contain the full reference. It should be noted that the online catalogue text simply repeats each published description unless I have examined an object myself. For example, some publications describe Type Biebrich inkwells as formed from sheet metal, while those examples I have seen, and most published examples, are cast. Similarly, decorative and functional elements are described in various ways in the catalogue text; it is only in the following discussion that a consistent terminology was adopted. For example, I use ‘aperture cover’ here instead of ‘inner lid’ but the change of terminology was not made for the catalogue entries. The catalogue and index also state the country in which each inkwell was found.

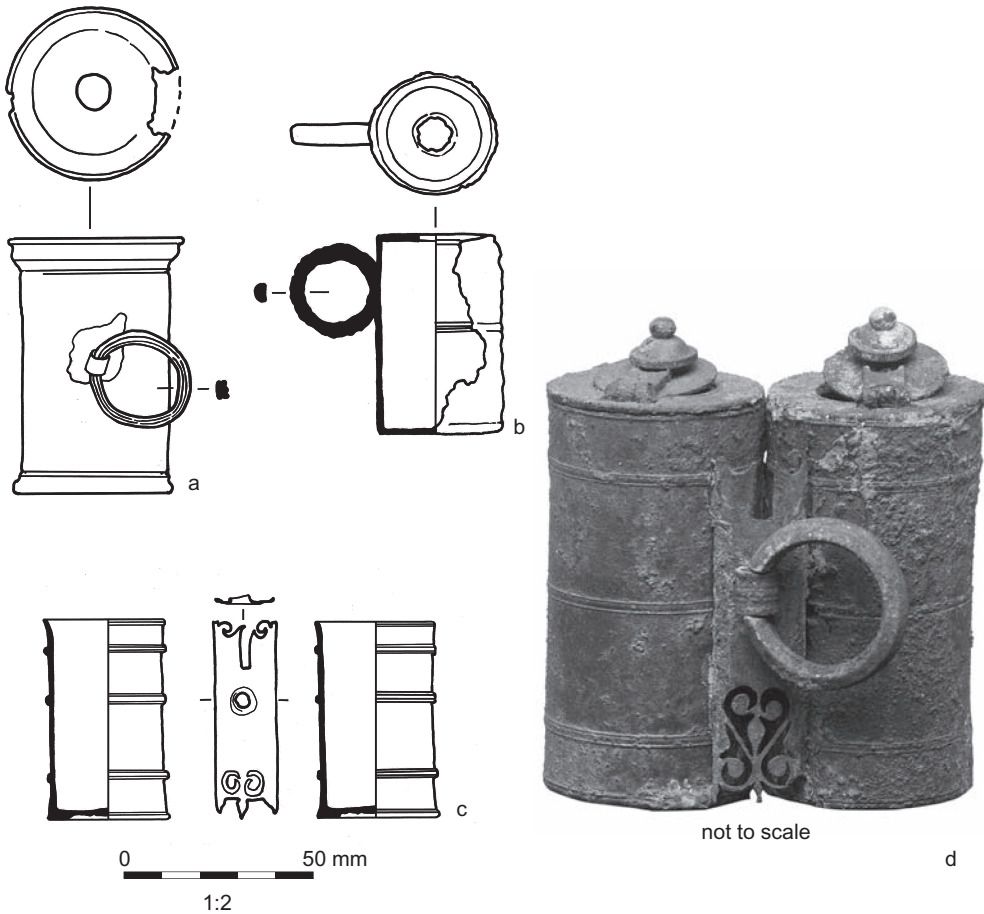
TYPOLOGICAL DISCUSSION

Early Inkwells

A number of inkwells of very early date have been recorded, but while they share some stylistic features, they do not form a strong ‘type’ (Figure 5.1a–b; cf. Božič and Feugère 2004, 35).

Two examples from the Augustan fort at Haltern (Nos. 81–82) have a prominent base and top, a feature we also see in the slightly later Type Biebrich inkwells. By contrast, the three inkwells from the shipwreck at Comacchio (Italy) are simply cylindrical; the ship, which sank towards the end of the first century BC, carried lead ingots and amphorae from Spain (Invernizzi 1990). No. 82 from Haltern and No. 80 from Comacchio have incised lines, a decorative feature that becomes very common on later cylindrical inkwells. All have dished lids with a central opening and three have a large loop handle; however, for Haltern No. 81, the large loop handle may have been a later addition (Müller 1997, 25, footnote 40).

A circular lid with a loop handle (No. 372) is possibly from an inkwell (Božič and Feugère 2004, 35; Fingerlin 1998, 99). If so, it would be another very early example, coming from the legionary vexillation and auxiliary camp at Dangstetten, which is dated from 15/12 BC to 9/8 BC. Another possible inkwell lid has recently been published from Waldgirmes (No. 480); this is a short-lived settlement with strong military influence occupied from 4/3 BC



5.1. (a) and (b) Early inkwells from Haltern (after Müller 1997, fig. 18.68) and Comachio (after Invernizzi 1990, No. 224); (c) and (d) Elegant early double inkwells from Picenum (after Božič 2001e, fig. 3 a–c) and ‘Athens’ (by kind permission of the Staatliche Museen zu Berlin – Antikensammlung, inventory number Misc. 10558 f, negative number Ant 3932).

to AD 16, with evidence for iconoclasm and decline after the defeat of Varus in AD 9 (Becker and Rasbach 2015).

Elegant Early Double Inkwells

Some examples that have on occasion been listed as a Type Biebrich can perhaps best be described as a separate but related type (Figure 5.1c–d; Božič 2001b). Examples have been recorded from the Italian sites of Alba (No. 83) and Picenum (No. 85), from Siculi in Croatia (No. 86) and from Athens (No. 84). All have a neatly defined and very slightly protruding base and top; usually there are two or three concentric mouldings. Two are from rich Italian graves of broadly similar date, albeit some distance apart geographically. The grave in Alba is dated on the basis of pottery, lamps and coins of Caligula and Tiberius

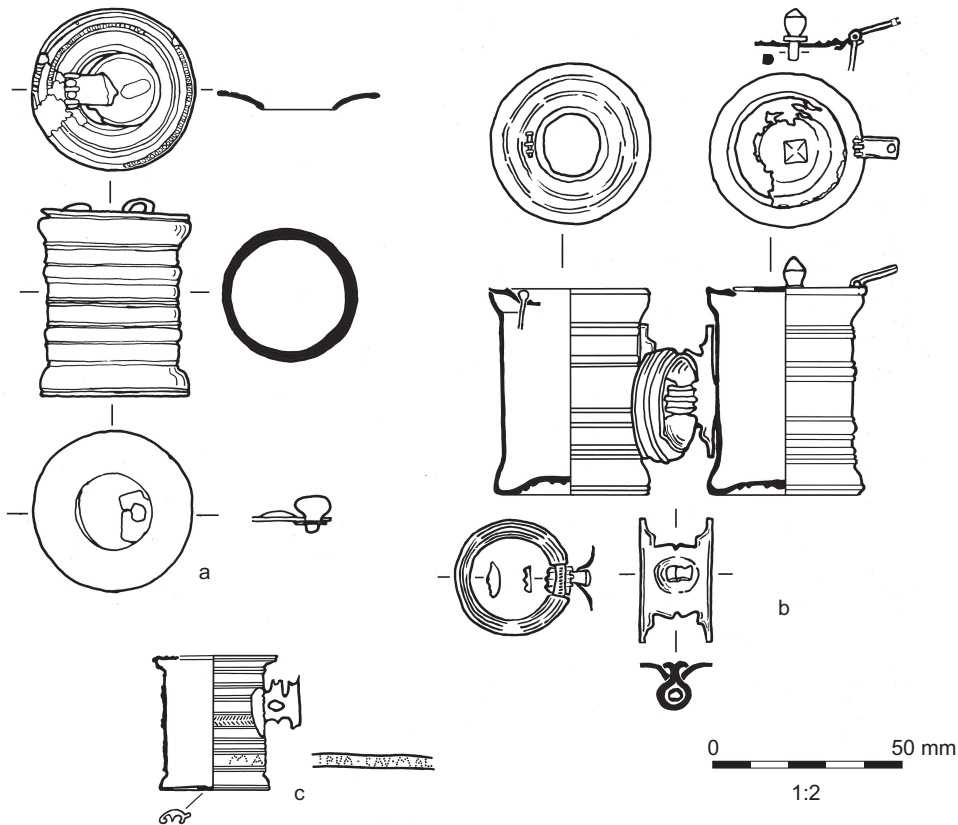
to the second quarter of the first century AD (Filippi 1982, 35–37), and the grave from Picenum on the basis of glass vessels and an Augustan coin to the first half of the first century AD (Mercando 1974, 112–123). The third is said to be from a grave in Athens but was bought in Paris in 1904, so the provenance is not certain; this inkwell was in Berlin, but since 1945 is in the Pushkin Museum, Moscow (M. Maischberger, pers. comm.). The example from Croatia (No. 86) may have been part of a doctor's grave but this cannot be confirmed as it is an antiquarian find. It is possible that all these examples are from the same workshop, which, given their distribution, was probably located in Italy. Some typological affinity to Type Biebrich is evident in the mouldings and the design of the joining plate at Picenum, Siculi and Athens. The shape and the quality of the workmanship are also similar to the inkwell of Type Noll from Trieste (No. 43; Colour Plate 5.1). There are also some examples amongst the 'Miscellaneous inkwell' group that appear similar, for example, those from Chichester and Rheinhessen (Nos. 249 and 280).

The type is associated in graves with other writing equipment, counters and items of grooming; the grave in Picenum may be that of a girl (see Chapters 9 and 11).

Type Biebrich

A very distinctive type of inkwell was first noted by Depeyrot et al. (1986) and then actually termed 'Type Biebrich' by Božič (2001b; cf. Fünfschilling 2012, 191). Ink wells of this type are cast and then lathe-finished (Koster 1997, 88; Mutz 1972) and characterized by a prominent base and top. The cylindrical body is decorated with varying numbers of circular mouldings, which in turn can be decorated with beaded or herringbone designs (Figure 5.2; Božič 2001b). Most have at least two or three such mouldings, but there are examples (e.g. No. 183 Biebrich and the related form No. 192 Ljubljana River) that appear to only have one central one. Where it has been possible to handle examples, the weight of Type Biebrich inkwells is quite noticeable, especially when compared to inkwells made from sheet metal. These inkwells were cast and may contain significant amounts of lead, as has been suggested for No. 193 from London; this addition to the alloy would have allowed the metal to flow more freely into the mould.

There are several double inkwells, used for black and red ink respectively; this is confirmed by an example from the Magdalensberg (No. 197) that has the irregularly punched inscription CAV(E) PUR(PURAM) MAL(AM): 'beware of the bad red ink' (Öllerer 1998, 142–143, fig. 9). Only one of the pair survives there, together with the small joining plate (Figure 5.2c; cf. Božič 2001e). The joining plate is also preserved in the pairs from Biebrich (Nos. 182–183), Dramont D (No. 185), Ljubljana (No. 190) and Vertault (No. 402). Just the



5.2. Inkwells of Type Biebrich from (a) Asciburgium (after Bechert 1974, fig. 84.13), (b) Ljubljana (after Gaspari 2010, pl. 2, No 8490; fig. 58) and (c) the Magdalensberg (after Öllerer 1998, fig. 9).

joining element is known from a military *fabrica* at Ljubljana (No. 191) and from Picardie (No. 201). A substantial loop handle could be affixed to this joining element, with surviving examples at Biebrich (No. 182), Ljubljana (No. 190), Picardie (No. 201) and Vertault (No. 402). It seems unlikely that the inkwell pair was suspended from such a loop for any length of time but perhaps it was used to attach other writing equipment such as a theca or a set of pens.

The top of this inkwell type has a separately cast outer lid soldered on to the body; this is usually decorated with concentric rings, which in turn can be decorated with a beaded design (e.g. No. 179 Asciburgium, No. 190 Ljubljana). The outer lid holds the hinge for the circular aperture cover, which could be locked by means of a small riveted knob. Such a hinge is well preserved in the example from Trento (No. 453). The knob of the aperture cover is usually located off-centre and is connected to a small tongue underneath,

which allows for the opening and closing of the cover (Božič 2001c). The shape of the knobs varies, ranging from poppy heads (e.g. No. 182 Biebrich, No. 194 Macedonia), faceted square/ bipyramidal (No. 185 Dramont D, No. 187 Knossos (Greece), No. 190 Ljubljana) to D-shaped (Nos. 210–1 Vindonissa, Switzerland). Where only an aperture cover survives, it is often impossible to be certain whether it belonged to an inkwell of Type Biebrich or not. Such finds are listed and discussed here and in the catalogue under ‘Detached aperture covers and lids’, but it should be noted that Božič (2001c) suggests that examples such as the poppy-head cover from Risstissen (No. 96), the unusual bird-shaped knob from Zurzach (No. 302) and faceted and round examples from the Magdelensberg (No. 310–311) may have belonged to Type Biebrich inkwells (Figure 5.18). It is notable that the aperture cover is often missing, presumably because the hinge mechanism broke. On occasion, repairs or replacements had to be made; thus the cover of an inkwell now in Nijmegen, but of unknown provenance, was replaced by a *dupondius* of Nero (No. 216).

The bases of Type Biebrich inkwells usually have rings and a central point from having been lathe-finished. Some (No. 182 Biebrich and No. 197 Magdalensberg) have three pelta-shaped feet soldered onto the base; in some cases only traces of solder remain (e.g. No. 180 Augst, No. 216 unknown provenance now in Nijmegen, No. 199, Novo Mesto and possibly No. 213 Vindonissa; cf. Božič 2001b). Pelta-shaped feet are common on copper-alloy casseroles of early first century AD dates, as indicated by finds from Haltern and elsewhere (Müller 1997, 16). None of the certain Type Biebrich examples have a maker’s stamp. However, the fragmentary remains from Risstissen, consisting of a base with three decorative feet and a stamp of the maker GALLVS (No. 95) and an aperture cover with a poppy-shaped knob mentioned previously (No. 96) may well belong to a Type Biebrich inkwell. This is likely for the aperture cover (Figure 5.18b), but stamps are much more common on inkwells of Type Noll and of related forms (Chapter 4). The base is from a pit within the *praetorium* of the Claudio-Neronian fort, and while no detailed context information is given for the aperture cover, it appears to also be from the fort and of the same date (Kemkes 2016, 322; Ulbert 1970). It is possible that the two fragments belong to two different inkwells.

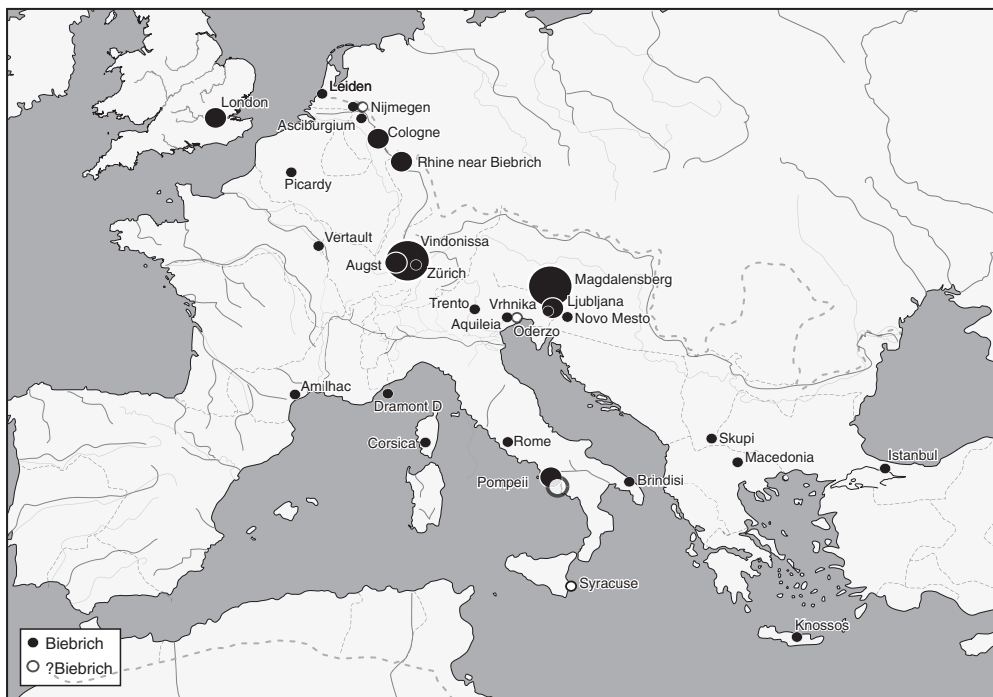
For a number of examples published as belonging to this type, attribution is not certain. A copper-alloy container from Lyon (No. 445) appears to be very elongated and may be a pen case; an inkwell now in the British Museum (No. 49/455) is a (modern) composite object, combining a Biebrich body with a Type Noll lid. Nos. 204–205 from Pompeii and No. 209 from Syracuse are not well enough illustrated to determine type. At least two inkwells (No. 218 from Nijmegen and No. 192 from the Ljubljana River near Vrhnika) are clearly closely related to Type Biebrich (and indeed to early inkwells like Nos. 81–82 from Haltern) but lack the mouldings and may be wrought rather than cast.

TABLE 5.1. *Dating evidence for inkwells of Type Biebrich*

Site	Evidence	Suggested date
Augst (No. 181)	From a context in Insula 45 dated presumably on basis of pottery	AD 70–100 (Fünfschilling 2012, 218, pl. 5, No. 116)
Brindisi (No. 184)	Republican coin of Clovius, rich grave with glass vessels	End of first century BC–early first century AD (Cocchiari and Andreassi 1988, 160–161); mid-first century AD (Fünfschilling 2012, 171)
Dramont D (No. 185)	Wreck with amphorae, Arretine pottery, lamps	End of the first half of the first century AD (Joncheray 1975, 6–8)
Lavezzi II (No. 188)	Wreck with amphorae and Samian	Second half of the first century AD (Bebko 1971, 34, No. 188)
Ljubljana (No. 190)	Early Roman deposits associated with a road; Republican denarius, moneyers' dupondius and asses; Samian	Augustan–Tiberian (Gaspari 2010, 32 and 103)
London, 1 Poultry (No. 193)	Phase 2 context	AD 53–60/61 (Hill and Rowsome 2011, 508)
London, Plantation Place (No. 400)	Pre-Boudican pit	Pre-AD 60/61 (Marshall and Wardle, pers. comm.; Dunwoodie et al. 2016)
Magdalensberg (Nos. 195–198)	No specific context dates but site is Augustan–Claudian	Augustan–Claudian (Öllerer 1998; Deimel 1987, 172)
Nijmegen Kopshof (No. 401)	Auxilliary fort with TAQ of Batavian revolt	Terminus Ante Quem: AD 69/70
Pompeii (No. 202)	Pre-AD 79	Pre-AD 79 (Ward-Perkins and Claridge 1976, no 285)
North of Rome (No. 206)	Very rich grave with silver and glass vessels; As of Tiberius (AD 15–16)	Early first century AD (Platz-Horster 1978, 184–195)
Trento (No. 453)	Grave with bone pen and glass urn	Middle of the first to second century AD (Endrizzi 1990, 42)
Vindonissa 98.1 (No. 213)	Rich female grave, glass vessels and coins (As of Caligula for Agrippa, AD 37–41 and As of Augustus)	Middle of the first century AD (Hintermann 2000, 104)
Unknown provenance/ Nijmegen (No. 216)	Dupondius of Nero as replacement lid	TPQ of AD 64 (Koster 1993, 46), but note that this is a repair

Dating evidence for inkwells of Type Biebrich is quite abundant and very consistently suggests a production date in the first half of the first century AD (Table 5.1).

Type Biebrich inkwells have a wide distribution from London in the north to Brindisi in the south and Servian Amilham in the west to Knossos and Istanbul in the east (Figure 5.3). There are no obvious concentrations, other than perhaps in northern Italy and adjacent areas; a number of examples were found along the Rhine, which clearly acted as a major transport route north.



5.3. Distribution of inkwells of Type Biebrich (author's own). The Roman Empire's boundaries are shown at its greatest extent under Trajan, post-dating the floruit of this type.

The apparent absence in North Africa, Spain and parts of Gaul may be due to publication levels.

In terms of the cultural milieus in which these inkwells occur, we may note a number of military sites (e.g. Asciburgium, the *fabrica* at Ljubljana, Nijmegen, Vindonissa) but also towns (e.g. Cologne, London, Pompeii). The multiple examples from the *oppidum* and Roman trade settlement on the Magdalensberg are interesting and may point to literate merchants but perhaps also to the Norican elite adopting this skill at an early date. Literate merchants may also be represented by the inkwells from the shipwreck at Dramont D. No example is known from a hoard or certain votive context; however, it is quite possible that the inkwell from the Ljubljanica River near Vrhnika (No. 192) may be a votive offering rather than an accidental loss (Istenič 2009, 79–85). A number of inkwells of Type Biebrich are from burials, and often very rich burials (e.g. No. 184 Brindisi, No. 206 North of Rome). In many cases these include other writing equipment and there also appears to be an association with gaming pieces (Chapter 11). Two graves are thought to be of medical professionals (No. 399 Cologne, No. 213 Vindonissa). Another important observation is that three graves appear to be those of women or girls (No. 184 Brindisi, No. 206 North of Rome, No. 213 Vindonissa; Chapter 9).

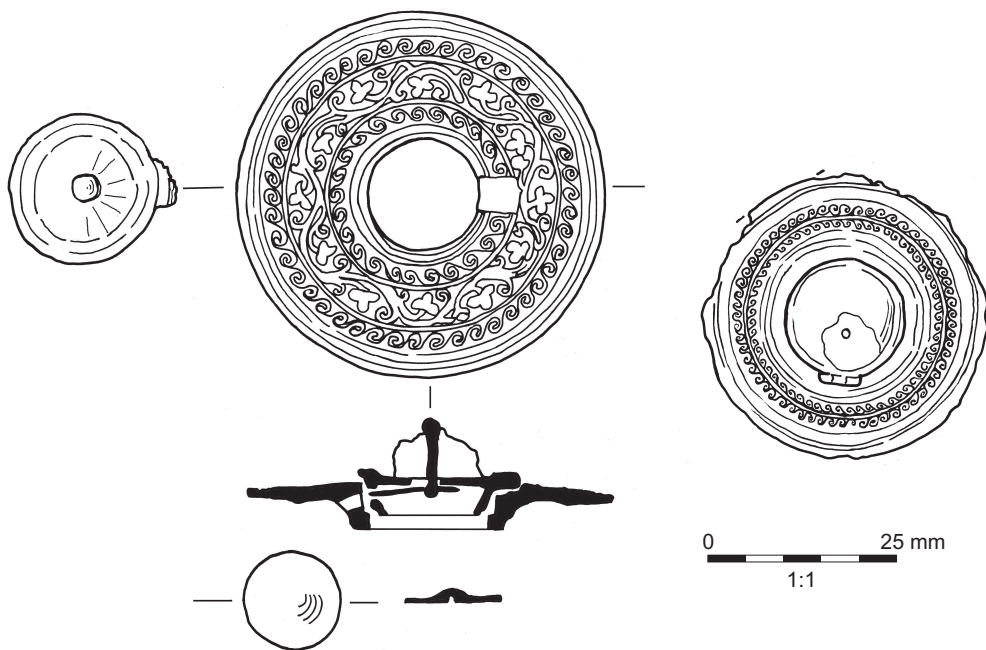


5.4. Grave altar of Manius Servius Primigenius from Aquileia (by kind permission of Ministero dei beni e delle attività culturali e del turismo, Polo Museale Regionale del Friuli-Venezia Giulia).

Some Pompeian wall paintings depict inkwells, in one case clearly showing circular ridges at the top, middle and base and with the golden colour indicating that the material was a copper-alloy (Birt 1907, fig. 148; Blümner 1911, fig. 73). This could be an inkwell of Type Biebrich, which is attested at the site (Nos. 202–203, possibly also 204–205). An inkwell of this type may also be depicted on the grave altar to M. Servius Primigenius from Aquileia, which shows pronounced mouldings on the base, middle and top and an open-hinged lid and possibly a suspension ring attached to the middle moulding (Maionica 1903, 366, fig. 1; Gaitzsch 1984, 196, fig. 5; CIL V 1, 1376). Also depicted are a writing tablet and a wax spatula (Figure 5.4).

Inkwells of Type Noll

Noll (1988, 1937) identified a corpus of thirty-two inkwells from across the Empire that are made from copper-alloy and decorated with ‘niello’, silver and more rarely gold. A further fourteen certain and three possible examples are recorded here. Typically the design is inlaid with silver against a black background covering the copper-alloy (see Chapter 4). Gold inlay occurs on the British Museum Telephos double inkwell (No. 47), on examples at Mérida (No. 469), Terlizzi (No. 42), Trieste (No. 43) and Vaison (No. 62) and on an

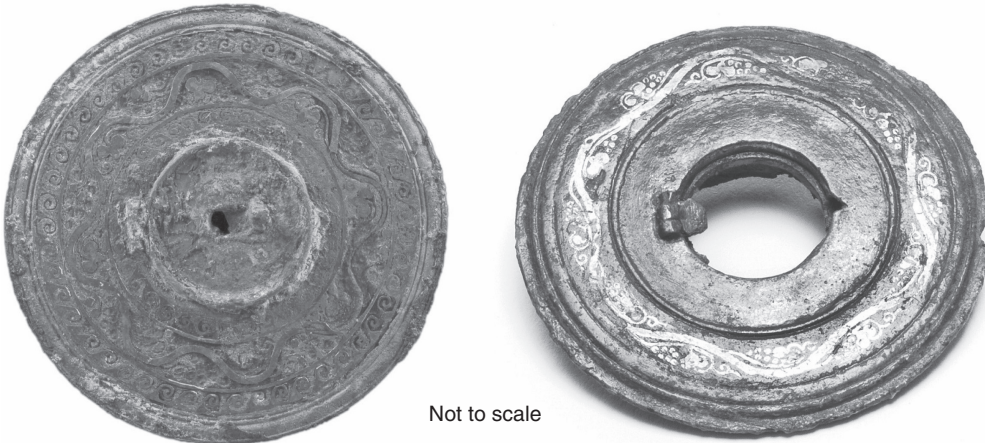


5.5. Lid designs on Type Noll inkwells from Salzburg (after Noll 1988, fig. 1.4) and Nijmegen (after Koster 2013, pl. 42.30).

inkwell now in Athens (No. 48). These are all very elaborate inkwells, and in many cases the body is decorated with figural motifs, but the defining feature is the highly decorated lid.

Noll (1988, 86) discusses the varying lid designs in detail and notes that the most common lid decoration consists of a vine framed by two bands of running scrolls (Figures 5.5–5.6). The vine can be in six (e.g. Nos. 26, 37, 48, 53, 56), seven (e.g. Nos. 34, 47) or eight (e.g. No. 44) waves. The vine can also occur on its own (e.g. Nos. 27, 28, 52, 55, 58). Alternatively, the running scroll motif can be employed on its own, usually as two facing bands (Nos. 32, 35, 36, 38, 60, 468). A laurel wreath can be used on its own (No. 46) or framed by bands of running scrolls (Nos. 45, 51, 62). Noll (1937, 10) records a possible lid of this type from the Saalburg (No. 65) with a variant decoration in silver consisting of four lotus tendrils and palmettes; this is larger than most inkwell lids. He also notes an unusual lid from Carnuntum (Austria, No. 66), engraved with images of birds, a vase and rosette, but as this varies both in technique and design, it should not be regarded as this type (Figure 5.8). On occasion, lack of details in publication makes certain identification difficult, but an inkwell from Rome's Via Triumphalis cemetery is almost certainly of Type Noll (No. 452).

On inkwells of Type Noll the aperture covers are hinged and often have a rectangular opening through which the closing mechanism could be operated (Figure 5.6; see Noll 1988, pl. 7). In many examples the cover is now missing

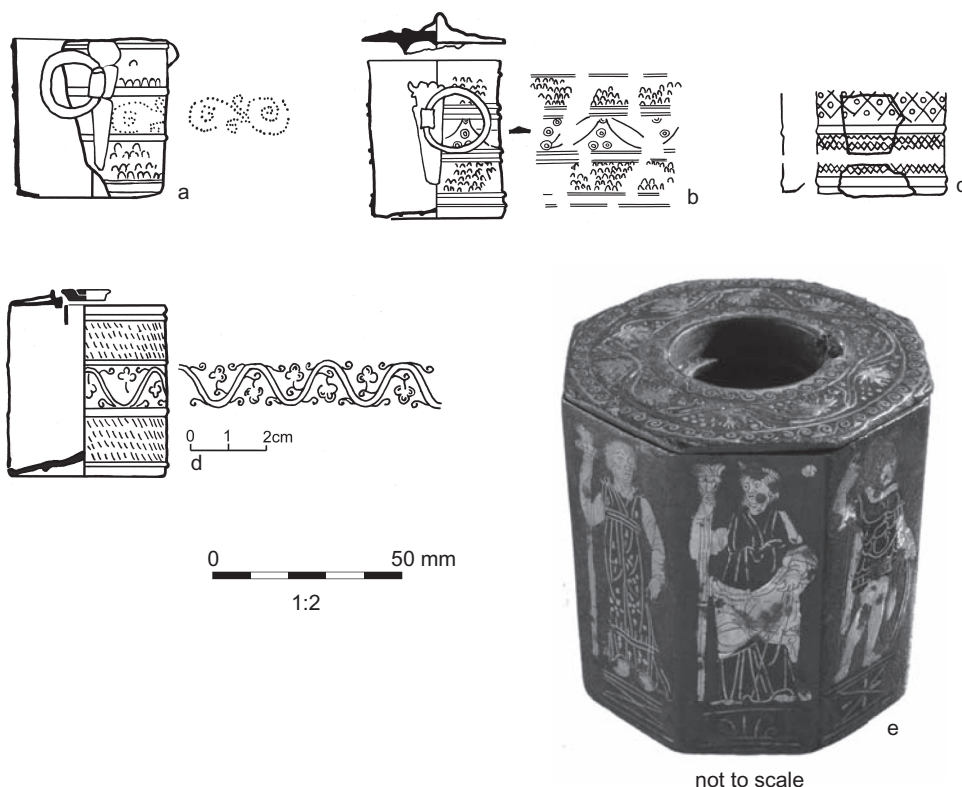


Not to scale

5.6. Lids of a Type Noll inkwell from London (by kind permission of Pre-construct Archaeology) and probably from Carnuntum (by kind permission of the Prähistorische Staatssammlung München (Inv. No. 1975, 884; Photo St. Friedrich)).

but the rectangular opening is preserved (e.g. Nos. 31, 45, 46, 55, 56). The actual closing mechanism consists of a small rivet connected to a bone or wooden knob at the top and to a small, pointed horizontal bolt on the underside, which could be moved backwards or forward to insert or remove it from a small notch on the side of the dip hole (Noll 1937, 3; see Nos. 26, 29, 35, 37, 48, 59). Similar bolts can be found on aperture covers of other inkwell types. In inkwell No. 37 from Nijmegen the bolt is covered by an embossed horse on the interior, and an identical design occurs on another inkwell from the same site (No. 94). The latter is stamped by Socrates but lacks the decorated Type Noll lid (Figure 5.9a).

The majority of recorded examples of this type are lids, but there are a number of complete inkwells in museum collections; these are likely to have come from graves even if this is not always documented. Where the vessel body is preserved, it is commonly divided into three zones (Figure 5.7). Three lathe-finished lines define the body, which is either undecorated (Nos. 36, 52), decorated with punched scales, circles and engraved leaves (No. 35) or punched scales and an engraved tendril (Nos. 37, 468). Three bands of scale design (Nos. 48, 452), scales and hatching (No. 53) or circles in diamonds, hatching and a wavy design (No. 41) are also known. In an inkwell of unknown provenance now in the Zadar Museum (No. 59) ivy tendrils in silver decorate the vessel body near the top and base and a running scroll design frames a beaded band round the centre. The beautiful example from Trieste (No. 43, Colour Plate 5.1) also has bands of running scrolls, a vine and hatching on the body. Inkwell No. 49/455 now in the British Museum is a composite object combining a Type Noll lid and a Type Biebrich body. Many of these body designs occur on



5.7. Decoration on inkwell bodies of Type Noll from (a) and (b) Nijmegen (after Koster 2013, pl. 30.40 and pl. 42.30), (c) Inota (after Palágyi 1981, pl. IV.10), (d) Mérida (after Alonso et al. 2014, fig. 14) and (e) Terlizzi (by kind permission of the Ministero dei Beni e delle Attività Culturali e del Turismo – Museo Archeologico Nazionale di Napoli; Photo Luigi Spina).

inkwells with plain or missing lids, some of which may in fact belong to Type Noll and all of which belong to the same period and production milieu.

The most elaborate Type Noll inkwell bodies are those decorated with elaborate mythological scenes, of which four are currently known. These depict scenes from the myth of Telephos (No. 47 British Museum), Aphrodite and her followers (No. 62 Vaison), Bacchus and his followers (No. 61 Laembaesis) and representations of varying gods possibly representing the days of the week (No. 42 Terlizzi). None of these elaborate vessels are stamped, and while quite possibly made in the same workshops, no two are exactly alike, and there is no obvious link between the decoration and the purpose of the object (i.e. writing). It is of course possible that the decoration had significance to the user in other ways. Almost all the inkwells of Type Noll are cylindrical, with the exception of the inkwell from Terlizzi (No. 42), which is eight-sided and thus differs both from the rare hexagonal inkwells (e.g. Nos. 122, 450) and enamelled vessels of Type Johns. Several examples have a loop handle (Nos. 35 and 37 from Nijmegen; No. 36 Wijchen; No. 46 unknown provenance). There are surviving

double inkwells (No. 36 Wijchen, No. 43 Trieste and No. 47 British Museum) and many of the single vessels recorded may have been paired originally. Four inkwells of Type Noll are stamped: No. 35 from Nijmegen (EX OF LON SOCR), No. 36 from Wijchen (EX OF SOC), No. 52 of unknown provenance (but probably Carnuntum) now in Munich (EX OF SOC) and No. 75 from Gomilice (OFSOCR). It should be noted, however, that the same maker also produced inkwells without the elaborately decorated lid (Chapter 4).

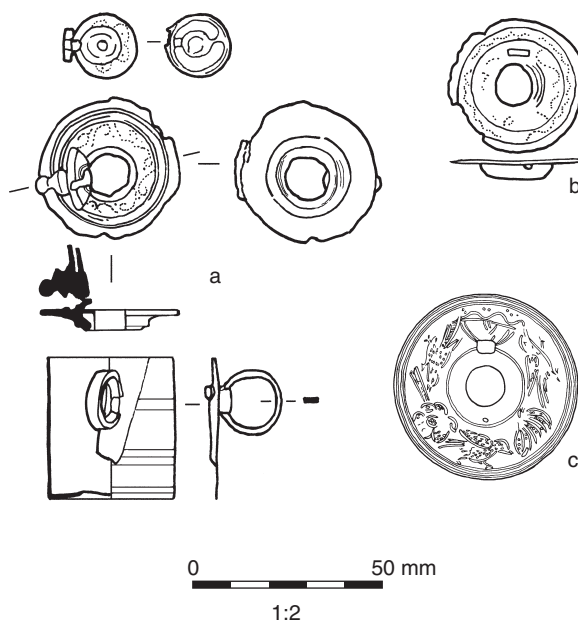
Many Type Noll inkwells are in major museum collections without secure provenances but the type has a wide distribution, from London to North Africa and Spain to Croatia, with multiple finds in Holland and Austria (Figure 7.1). A *possible* inkwell of this type comes from Doncaster (No. 438) and another from Niederdorla in Thuringia, Germany, and therefore outside of the Empire (No. 417). Production may well have been in Italy, possibly Campania (Noll 1988, 87–89; Koster 1997, 88; cf. Deperoyt et al. 1986, 159). The provenanced finds are mainly from military, military/urban and urban contexts, as well as elite burials, which can be in more rural locations. The *possible* example from Niederdorla comes from a settlement located close to an important Germanic sanctuary (Behm-Blancke 2002).

Due to the many examples without a secure provenance, dating information is limited. The earliest context dates are from Pompeii (No. 44) and Grave 8, Nijmegen (No. 37, dated to AD 80–100). The lid from London, Plantation Place (No. 404), comes from a Flavian/late first century AD demolition dump postdating a short-lived post-Boudican fort (Dunwoodie et al. 2016; pers. comm. Michael Marshall and Angela Wardle). The grave from Trieste (No. 43) contained a coin of Domitian and factory lamps, again suggesting a later first-century date. The possible Type Noll inkwell from Rome (No. 452) comes from a grave dated to the first third of the second century. Grave 9 from Nijmegen (No. 35) is dated to the first two decades of the second century and the rich tumulus at Inota (No. 41) to the later first–early second century. A lid from Salzburg (No. 29) came from layers thought to date to the first and second century AD and lid Nos. 63, 64 and 65 from contexts dated to the second century. It has been noted that the silver pelta-shaped feet on the Vaison inkwell are like those on the Biebrich inkwells, again suggesting a date in the last quarter of the first century AD (Descamps-Lequime 2006, 11 and 25). Overall, inkwells of Type Noll were therefore probably produced in the Flavian period and are used and deposited into the second century (cf. Koster 1997, 89).

Decorated Gaulish? Inkwells

This group of inkwells shares a common lid design, defined by punched decoration and a lip or flange around the dip hole (Figure 5.8). Only in one case

(No. 97 Nijmegen) is there an associated inkwell body that is divided into three undecorated zones by lathe-finished lines. This and the ring handle fixed to a tapering sheet of copper-alloy with a split pin is reminiscent of inkwells of Type Noll, but also other well-made and stamped examples (e.g. No. 92 London). The lid of inkwell No. 97 is tin-plated and decorated with a punched dotted wave motif bordered on the outside by two concentric lines. The centre is pushed down to act as an anti-spill device and to house the aperture cover, which consists of a profiled copper-alloy knob attached to a bolt. Koster (2013, 158–159) suggests this type may be of Gaulish manufacture and relates it to the fragmentary remains of an inkwell



5.8. Inkwells of ?Gaulish type with punched decoration and flange around the dip hole from (a) Nijmegen (after Koster 2013, pl. 54.19), (b) Caerwent (by kind permission of the National Museum Wales) and (c) Carnuntum (after Noll 1988, fig. 1.6).

(without the punched decoration) from Grave 1 in the same cemetery (No. 332). A fragmentary inkwell from a late Trajanic grave in Günzenhausen (No. 67) has what is described as a 'wavy band design' on the lid (Fasold 1987/1988, 209), but Fünfschilling (2012, 191) describes it as having niello inlay. The curved stamp on that inkwell would support Gaulish production (Petrovsky 1993, 181–182; Chapter 4) but it is also possible that this inkwell is of Type Noll.

Two lids from Britain are clearly of this type. One comes from a late first- to early second-century context in Caerwent (Figure 5.8b; No. 383; pers. comm. Evan Chapman), while the other is from the fill of a robber trench dated to c.AD 115/120–c.260 at Loughor (No. 384; Marvell and Owen-John 1997, 253–254, fig. 96, No. 75). Finally, there is a lid from Carnuntum (Figure 5.8c; No. 66) that has incised decoration consisting of three running birds separated by a vase, and possibly a rosette and bush (Noll 1988, 89, fig. 1.6).

Inkwells in this group are clearly influenced by those of Type Noll, with the punched decoration possibly imitating the inlay and niello design, and with elements of the body such as the division into three zones and the type of handle clearly indicating a later first- to second-century date. The lip or flange around the dip hole at the centre of the lid, which has a notch to receive the tip of the bolt from the aperture cover, occurs on some inkwells of Type Noll (e.g. No 30. from London). There are a considerable number of lids that

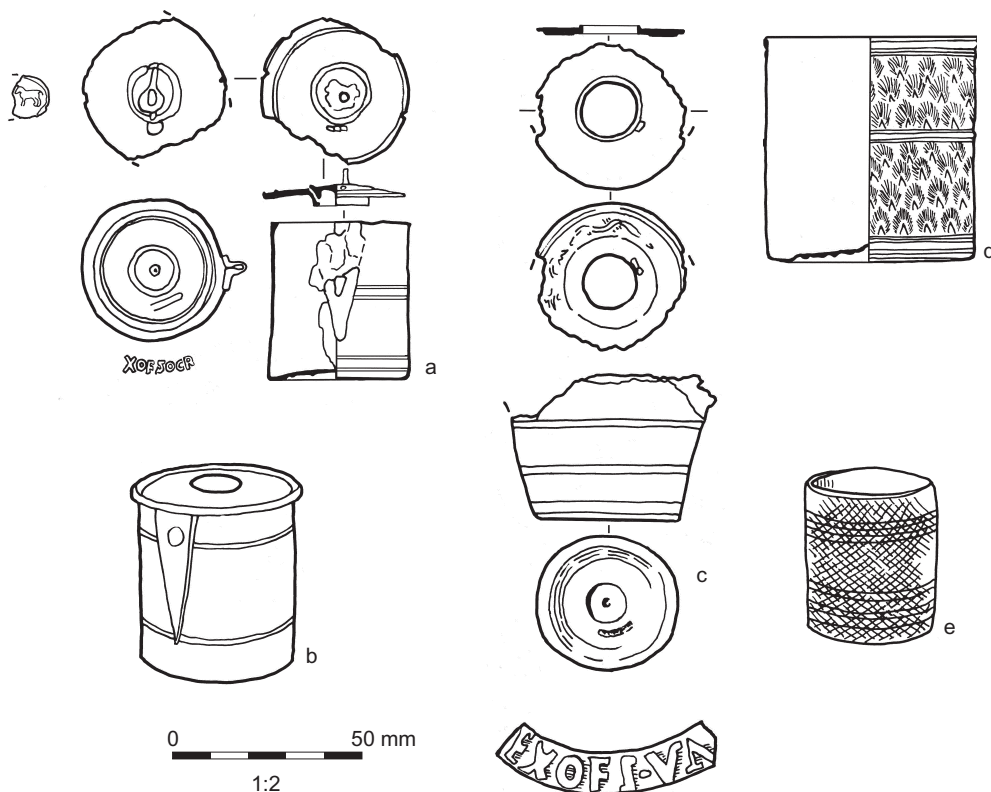
also have this flange but lack the punched design (e.g. No. 379 Caerleon, No. 380 London, No. 389 Usk; Figure 5.19d). Again, we are seeing the difference between tightly defined types and objects produced at roughly the same time sharing certain stylistic features. Provincial production, possibly in Gaul, seems likely.

Other Stamped and Decorated First- to Second-Century Inkwells

This is not a coherent ‘type’ but rather a convenient way of grouping material together for discussion, focusing on stamps and body decoration (Figure 5.9). We have already discussed makers’ stamps in Chapter 4 and noted that several inkwells of Type Noll were produced by the prolific Socrates. There are a number of inkwell bases stamped by him (No. 77 Mintia, No. 87 Althaldersleben, No. 89 Crundale; Nos. 90–91 Florence) and others (No. 88 Carnuntum and No. 93 Tiblisi) where there is simply no information on the vessel body or lid. Some of these may be of Type Noll. An inkwell from Günzenhausen (No. 67) may or may not have had niello inlay on its decorated lid (Figure 5.9c; Fasold 1987/1988, 209; Fünfschilling 2012, 191) and could belong to either Type Noll or the Gaulish group previously discussed.

Clearly, high-quality inkwells of various forms were produced at this time, and while they share stylistic elements, we cannot assume all were of Type Noll. This is well illustrated by an inkwell from Nijmegen (No. 94) stamped by Socrates; the body and lid are plain (other than being decorated with concentric rings) and there is an unusual horse design on the interior of the aperture cover (Figure 5.9a). This inkwell shares the stamp with Type Noll No. 35 from Nijmegen, which has a Noll lid and a body decorated with punched scales, leaves and circles. A third inkwell from the same site (No. 37) is not stamped but, like No. 35, has a Type Noll lid of a slightly different design and a body decorated with punched scales and a tendril; it shares the unusual horse design on the interior of the aperture cover with No. 94. We can therefore see that all these inkwells are part of the same milieu, artificially divided into modern types. To labour the point, we may note a well-preserved inkwell from London (No. 92) that has a plain body and lid but a handle design similar to many of the Type Noll examples; it was produced by the workshop of Cornelianus.

The example from a rich grave in Aquileia stamped MRVBB (No. 106) has a body decoration that is virtually identical to the inkwell of Type Noll from the tumulus in Inota (No. 41; Figure 5.7c). A small number of other inkwells also have bodies with incised decoration, usually in the shape of feathers, leaves or scales but lack the lid that would make attribution to Type Noll certain (e.g. No. 108 Nida Hedderheim; No. 110 Sopron; Figure 5.9d–e). On an example from Pompeii (No. 109), the description appears to indicate leaf decoration, but it is unclear whether this is on the lid or body. However, again



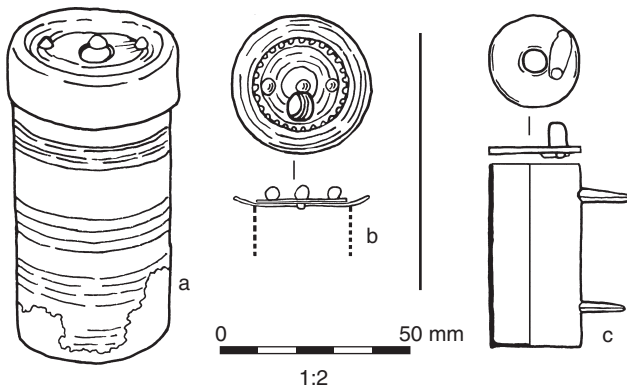
5.9. Inkwells with decorated bodies and/or stamps from (a) Nijmegen (after Koster 2013, pl. 66.17), (b) London (after Ward 1911, fig. 64D), (c) Günzenhausen (after Fasold 1987/1988, fig. 7.10), (d) Nida (after Fasold 2006, pl. 3.1) and (e) Sopron (after Bilkei 1980, pl. III, No. 30).

not all can automatically be attributed to Type Noll. Thus the inkwell from Berlingen (No. 107) has a body decorated with tightly spaced leaves arranged in three zones but has a plain lid, as does the example from Mérida stamped AM.VRSEIVS or A.MURSEIVS (No. 470).

There is little point in discussing spatial distribution or date, but the mid-first-century grave from Mérida (No. 470), the early Flavian grave at Berlingen (No. 107) and the find from Pompeii (No. 109) represent the earliest examples. It should be stressed that the objects discussed in this section are not part of a 'type' but represent a broad grouping based on shared stylistic features. They illustrate the exchange of ideas and manufacturing techniques between the makers of these objects in the later first and second century AD.

Inkwells with Rotating Aperture Cover

This distinctive inkwell type is characterised by a lid that fits over the inkwell body and has a complicated closing mechanism. The lid has two discs, with



5.10. Inkwells with rotating aperture cover from (a) Bonn (after Weerth 1882, 95) and (b) the Saalburg (after Fünfschilling 2012, fig. 44.1) and (c) inkwell of Type Boeselager from Krefeld Gellep (after von Boeselager 1989, fig. 9).

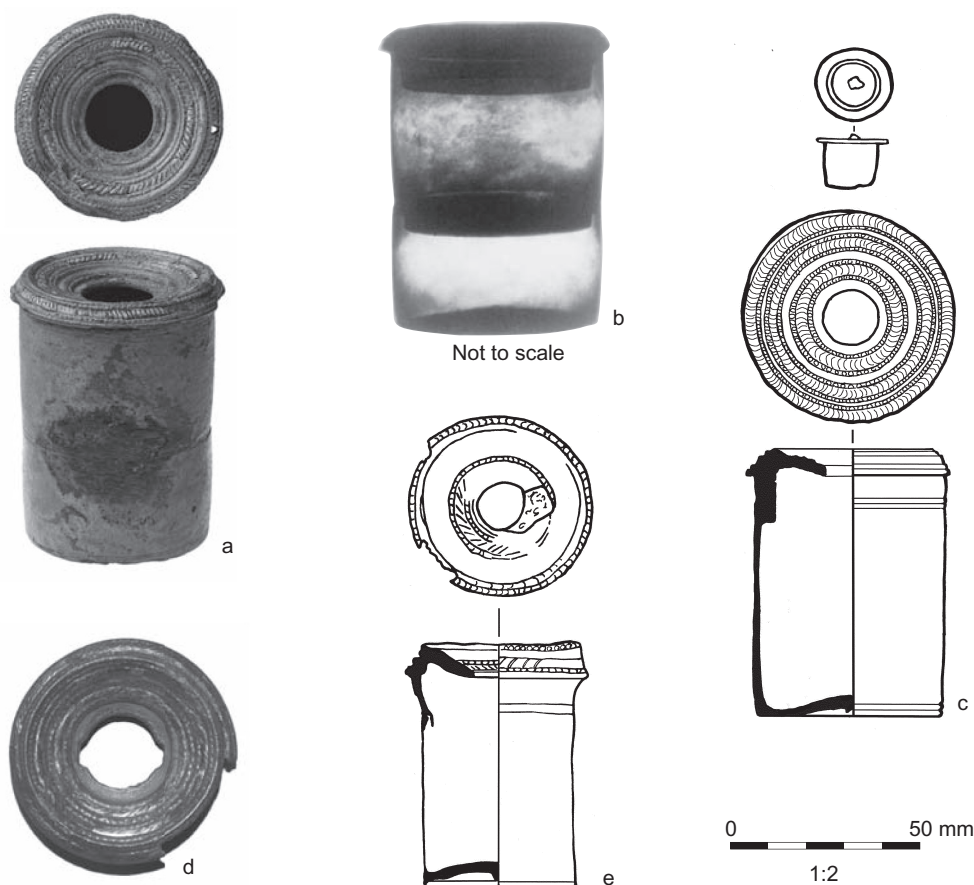
one soldered onto the body and the other fixed above it by a central rivet. Two flanking knobs that do not penetrate the lower disc were used to align holes cut into each disc so that the ink could be accessed (Figure 5.10a–b). In an example from the Saalburg (No. 154) the upper lid is toothed, but this does not appear to be the norm (Fünfschilling 2012, 193, fig. 44.1; Figure 5.10b). Four examples have been found in Hungary, but inkwells of this type also occur in Germany, Belgium and Switzerland. An inkwell from Cologne (No. 436) may be of this group but the top is too corroded to identify the closing mechanism.

The dating of this type is unresolved; the earliest context date seems to be that for a small lid from Augst, which was found in a feature in Insula 22 dated to AD 40–60 but which only contained a small amount of pottery (No. 146; Fünfschilling 2012, 220). The lid from a cremation grave at Intercisa was found with a worn bronze of Trajan (No. 151; Bilkei 1980, 81). A well-preserved example came from a stone sarcophagus in Bonn, where the antiquarian report states that it was associated with cremation urns, a small ceramic cup (with DAMI written on it¹) and a glass vessel, and the group is dated to the ‘mid-Roman’ period (No. 150; Weerth 1882, 95–96).

Type Elsdorf-Cologne-Lamersdorf

A small group of inkwells could be from the same workshop, probably located in the Rhineland (Figure 5.11; Fünfschilling 2012, 191; Božič and Feugère 2004, 35). The inkwell from Elsdorf (No. 125) is unique in having two compartments, which are slotted into each other (Gaitzsch 2001). They were presumably designed to store dry ink and ink diluted with water; another alternative is

¹ If this is a samian stamp, it could be Daminus (Lezoux, AD 150–200) or Damius (La Graufesenque): Hartley and Dickinson 2008, 240–241).



5.11. Inkwells from (a–b) Elsdorf (by kind permission Landes Museum Bonn, Photo J. Vogel and X-ray B. v. Zelewski), (c) Cologne St. Severin (after Päffgen 1986, fig. 10), (d) Vindolanda (by kind permission of the Vindolanda Trust) and (e) Lamersdorf (after Piepers 1968, fig. 12).

that these were separate compartments for black and red ink. While the use of compartments is unique, the design of the lid is paralleled in a number of other examples. In the Elsdorf inkwell the lid is decorated with concentric rings, two of which are more elaborate bands and have traces of tinning to give a silver effect. The rim is wider than the body of the inkwell and is slotted into it; there is a concentric central opening (dip hole) and a smaller hole on the outer edge, which once held a chain or string to which a stopper would have been fitted. This inkwell came from a grave dated to the second half of the second century.

Stylistically very similar is an inkwell from St. Severin (No. 126), which also has a lid decorated with concentric beaded rings and both a central opening for the stopper and a smaller hole to take a thin strap to prevent the stopper being lost when the inkwell was in use (Figure 5.11c; Päffgen 1986, figs. 2–15; Päffgen 1992, pl. 2–4). The two inkwells also have exactly the same dimensions. The inkwell from St. Severin was found in a rich double-cremation grave

dated to the last third of the second century AD. Not quite as close, but still similar, is a third inkwell from the wider region, namely from Lamersdorf (No. 127), about thirty-five miles west of Cologne. This inkwell also has a lid decorated with a series of circular rings defined by horizontal or angled designs. The inkwell was found in a stone sarcophagus and is thought to date to the second century AD (Figure 5.11e; Piepers 1968, 467–468, fig. 12). An unpublished find from Vindolanda (Figure 5.11d; No. 428) has the same decorated mouldings as the German examples but is slightly larger in size, and the opening for the aperture cover has two opposing cut-outs. This inkwell comes from an Antonine ditch fill (pers. comm. Andrew Birley). All four inkwells are close stylistically and all date to the (later) second century; production in Cologne seems likely. There are a number of related forms, notably another inkwell from Cologne, St. Severin (No. 128; Päffgen 1992, 135, pl. 38, 13). This lacks the more elaborate decoration at the top of the lid and is earlier in date (later first century) than the other examples but has a tinned lid, like No. 126 from St. Severin and the Elsdorf inkwell.

Inkwells with Keyhole Aperture and Lead Mask Cover

This is a small group, all possibly made in the same workshop. The inkwells are made from copper-alloy and have a body decorated with incised lines, a dished lid with a keyhole opening and a hinged lead aperture cover in the form of a human, probably feminine, mask (Figure 5.12a). This could represent Minerva, goddess of wisdom and learning, or Medusa, serving an apotropaic function. All three recorded examples come from exceptionally wealthy burials from the eastern part of the Empire. No. 137 was found in an unsexed cremation burial that also contained a coin of Caracalla and other writing equipment in Duklja, Montenegro (Cermanović-Kuzmanović et al. 1975, 58 and 325). Another inkwell of this type is known from a rich grave set into the tumulus at Isaccea (Romania). This contained a coin of Caligula (AD 37–41) but is dated stratigraphically to the third quarter of the second century (No. 138; Simion 1995, 124–125, fig. 13b). The third inkwell of this type is known from a mid-third-century, probably male, burial in Aquincum (No. 136; Bilkei 1980, 80, Nos. 92–95). This small group can be dated to the very late second to mid-third century AD, and given the relatively tight distribution, all three were probably made in the same workshop. All are from rich graves, two of which are almost certainly male (Chapter 9).

Inkwells with Keyhole Aperture but Without Cover

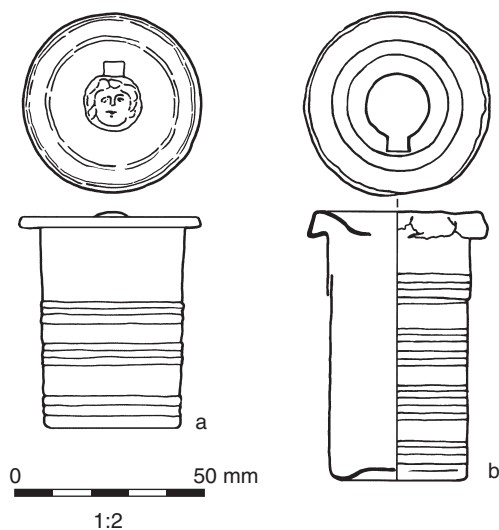
Where the aperture cover with the lead face has become detached as in Aquincum No. 136, a characteristic keyhole-shaped opening is left

(Figure 5.12b). The following group of inkwells is characterised by cylindrical bodies, often with incised lines and a dished lid with this kind of opening for a now missing aperture cover. The cover may well have been a lead mask, but this is obviously not certain. On an inkwell from Cologne (No. 433) there is a vertical element next to the large central opening, presumably part of the hinge mechanism for the aperture cover. The lid can simply be soldered onto the top of the body (e.g. No. 419 Marktoberdorf) or be slotted over it and extend some way down the wall (e.g. No. 416 Cologne, No. 130 Drnovo). Where only a lid has been found, it is possible that it is in fact not from an inkwell. Thus a lid from Intercisa (No. 437) is thought to come from a perfume container rather than an inkwell (Radnóti 1957, 216, pl. XLII, 2 and 5; cf. Bilkei 1980, 71).

I have recorded examples from Carnuntum (No. 129), Cologne (No. 416), Duklja (No. 417), Drnovo (No. 130), Intercisa (No. 131), Marktoberdorf (No. 419), the Saalburg (No. 132), Salzburg (No. 133), Straubing (No. 134) and Urbino (No. 472). Inkwell No. 135 from Szöny may belong to this group but is only known from a poor drawing. The distribution shows a clear concentration in the north-eastern provinces but there is one example from Italy, in Urbino (Figure 7.3). Dating information points to a mid-third-century date (Marktoberdorf, Duklja, Salzburg, Urbino and Carnuntum), similar to the examples with a lead mask.

Type Boeselager

A very distinctive type of inkwell was first recognised by von Boeselager in 1989. It has a plain cylindrical body with two horizontal protrusions, each with a small hole at the end (Figure 5.10c). These are interpreted as stylus holders, and styli were indeed found with all examples except for Neuss. The lid is flat and soldered onto the body. An unusual feature is that the central dip hole could be closed by moving a conical knob riveted to a piece of sheet bronze on the underside of the lid. Von Boeselager (1989) lists examples from Cologne (Aachener Strasse [No. 98], Friesenplatz [No. 99], Luxemburger Strasse 103 [No. 100] and 166 [No. 101]), Krefeld-Gellep (No. 102), Neuss (No. 103) and Nijmegen (No. 104) and dates the type to the first half of the third century.



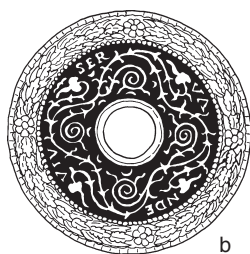
5.12. Inkwell with keyhole aperture and lead mask from Duklja (after Cermanović-Kuzmanović et al. 1975, fig. 2) and inkwell with keyhole opening from Drnovo (after Petru and Petru 1978, pl. XXIII).

Most of these inkwells come from wealthy burials and their tight distribution in Lower Germany suggests local production, quite possibly in Cologne. An additional, unpublished, example from Cologne (No. 421) lacks the horizontal protrusions but has the characteristic knob on the lid.

The graves are remarkably similar and several also contained items associated with grooming, notably strigils, mixing palettes and cosmetic instruments. In addition to the styli, items that relate to literacy include a wax spatula in Cologne Luxemburger Strasse 166 and Nijmegen, as well as knives in several of the graves. Most are cremations in either stone cists or wooden boxes. None of the remains have been sexed but the presence of beads at Krefeld Gellep has been taken to indicate a female burial. Very recently, the identification of this type as an inkwell has been questioned as these small vessels occur in doctor's graves (No. 104 Nijmegen, very possibly Nos. 99 and 100 Cologne; Chapter 11) where they may have functioned as containers for some kind of medical equipment or ointments (pers. comm. Marion Euskirchen).



Not to scale



Type Cologne

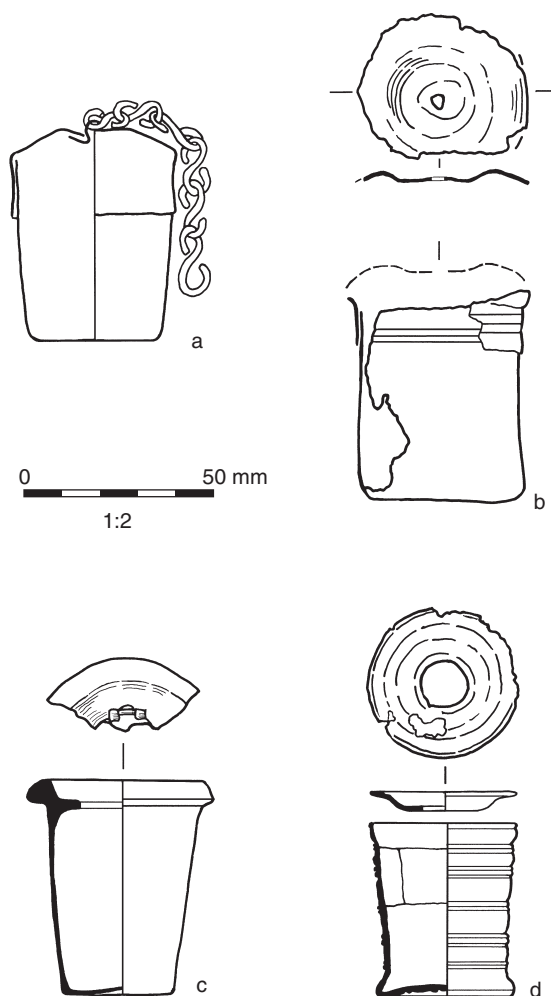
A small group of highly decorated inkwells echo some of the design elements of the inkwells of Type Noll, but they are later in date and appear to have been made in a single production centre, Cologne. Three of these inkwells have hexagonal lids, and all have a strongly moulded wreath and a vegetal pattern in niello and silver. The central dip-ping hole was presumably closed by a stopper. Two have an inscription on the lid: *SERVANDE VIV(AS)* – ‘May you live, Servandus’ (Figure 5.13b; No. 72, La Baume 1975, 228–230, fig. 52) and *LP IV LV HO MV* – ‘P(ublius) Iul(i)u(s) Homul(lus)’ (No. 70, Frei-Stolba and Lieb 2002, 4). These inkwells may have been produced as high-status gifts for specific individuals. Inkwell No. 69 is made completely of silver, whereas the others are made of copper-alloy; the bodies of all examples are divided into zones by horizontal lines. Inkwell No. 72 from Brunostrasse, Cologne, has a niello ivy tendril in four waves surrounded by a wreath; this is the only example in this group that does have a round, not a hexagonal, lid. Two were found in graves: No. 70 was found in a sarcophagus in 1883 with a coin of Gordianus III (AD 241). The silver inkwell No. 69 (Figure 5.13a) is from a grave group only documented in a nineteenth-century sales catalogue; it was associated with a wax spatula, a silver

5.13. Highly decorated inkwells from Cologne (a = by kind permission of Museum of Fine Arts, Boston, and b = after Niessen 1911, 200–201, No. 3828).

spoon, a silver brooch and two glass vessels. A third-century date can be suggested for the associated objects, so overall the type is likely to date to the third century AD.

Inkwells with Removable Lid and Chain

There is a distinct type of later Roman inkwell that is characterised by a cylindrical body over which a simple lid was fitted. The extent to which the lid passes down the body varies. What all the inkwells in this group have in common is the absence of a large central dip hole in the lid. They have instead an often quite substantial chain attached to the centre of the lid (Figure 5.14a). It is not always possible to identify from the published illustrations exactly how the chain was attached. The possible inkwell lid from Caerleon has a split pin staple (No. 156), and similarly at Drnovo a simple piece of wire secures the chain through the central opening (No. 157). By contrast, at Intercisa a copper-alloy loop handle is fitted onto a lead lid, which may represent a replacement (No. 158). In a rich male grave at Taraneš in Macedonia, the chain still links the lid to a cylindrical tube (Figure 2.8a; No. 162). This tube held a stylus and perhaps originally also parchments or pens and, in addition to the chain, was also connected to the inkwell by two obliquely cut copper-alloy sheets. On the central part of the chain connecting the inkwell and tube is a hook for attachment. The grave at Zmajevac contained two copper-alloy rings, which are interpreted as parchment holders (No. 163). The presence of a chain suggests that, for the makers and owners of these inkwells, it was important to secure the inkwell to other writing equipment or even possibly a desk.



5.14. Inkwell with removable lid and chain from (a) Drnovo (after Petru and Petru 1978, pl. XXIII.2) and inkwell with removable lid without chain from (b) Krefeld Gellep (after Pirling 1989, pl. 16.6). Inkwells with tapering body from (c) Krefeld Gellep (after Pirling 1974, pl. 99.5) and (d) Vindonissa (after Holliger 1986, pl. 14. 130).



5.15. The distribution of inkwells with removable lid, with and without chain (author's own).

Dating evidence suggests a later third- and fourth-century date for this type (cf. Božič and Feugère 2004, 35–37). Thus the rich grave in Taraneš (No. 162) is dated to the first half of the fourth century (Ivanovski 1987, 83), and the inkwell from another burial with a crossbow brooch from Rusovce-Orcszvár in Slovakia may well be of similar date (No. 160; Bilkei 1980, 78, pl. III, No. 60). The grave at Zmajevac may be dated to the very late fourth to fifth century on the basis of the Keller Type 6 crossbow brooch (No. 163; Filipović 2010, 63).

It has been suggested that this inkwell type was characteristic of the eastern part of the Empire (Fünfschilling 2012, 191); this is supported by Figure 5.15. The possible exceptions to this distribution pattern are a fragmentary lid from Caerleon dated to the early third century AD (No. 156; Evans and Metcalf 1992, 48, 153, No. 330) and a silver inkwell from a rich grave in Nîmes (No. 159; Fiches and Veyrac 1996, 444–445, fig. 344, No. 7), which also contained a coin of Trajan. This was published as a silver vessel in the original report but Božič and Feugère (2004, 35) identify it as an inkwell of the type with a closed lid and central suspension chain. The two finds for which I have the least information are thus spatial and temporal outliers, making it uncertain that they in fact belong to this type. Several of these inkwells came from male graves, identified either on the basis of grave goods such as crossbow brooches or occasionally anthropological sexing information (Nos. 158, 160, 161, 162); one was found with a teenager (No. 163; see Chapters 9 and 10).

Inkwells with Removable Lid but No Surviving Chain

There is a related group of inkwells that have a removable lid with a very small central hole; these are likely to have once held a chain, but this has not survived. A good example comes from a grave in Krefeld-Gellep that also contained a crossbow brooch (No. 168; Figure 5.14b). Further parallels come from two male burials at Keszthely-Úszató (Nos. 169–170) and only a lid was found in a rich male inhumation at Rusovce-Orcszvár in Slovakia dated to the middle or end of the fourth century (No. 171; Kraskovská 1974, 57, pl. XVII.9). An unpublished inkwell lid of this type from fourth-century layers in the Caerwent Basilica (No. 165) confirms the late date of this group; this and the inkwell from Krefeld-Gellep can perhaps be seen as western outliers of what is otherwise mainly an eastern type (Figure 5.15). A fragmentary lid (No. 164) from Augst, however, appears to come from a context containing first-century material, but that may be residual.

A few other inkwells (No. 435 Duklja; Nos. 166–167 and 298 Intercisa) all also have removable lids but appear to lack a small hole for the chain; in some cases, poor illustrations make it impossible to tell whether a chain was present. In Intercisa Grave 1993, the small chain found with the inkwell No. 298 may have once linked it to a leather case with a silver clasp, possibly containing an iron stylus and a writing tablet (Bilkei 1980, 81); from the drawing it is not certain that the chain was fixed to the lid.

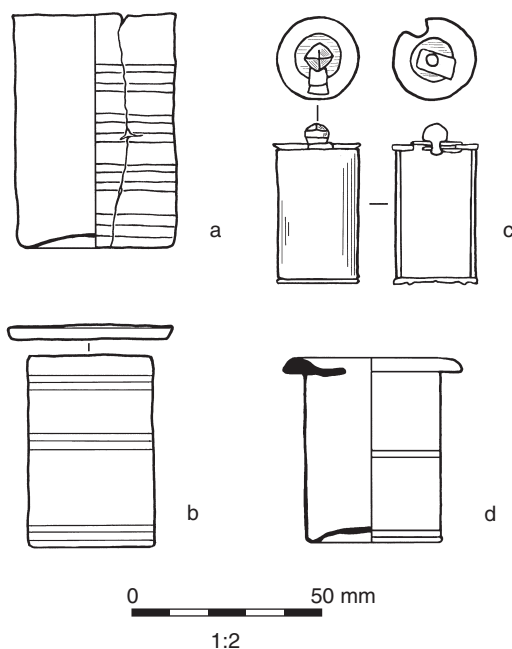
Inkwells with Tapering Body

A few inkwells have a tapered profile; these can be made from sheet metal (e.g. No. 173 Augst and No. 175 Karmacs) while others appear to have been cast (No. 177 Vindonissa). This is clearly a group rather than a closely defined type (Figure 5.14c–d). Several examples have incised circular decoration, as is common on many inkwells. The fragmentary inkwell from Günzenhausen (No. 67) appears to be of this shape, but as it also has a stamp and a decorated lid, it is here grouped with ‘other stamped and decorated inkwells (Figure 5.9c). An inkwell from Cologne (No. 174) in this group is from a ‘late imperial’ inhumation, and the possible inkwell from Karmacs (No. 175) is from a grave dated to the late fourth century (Bilkei 1980, 77). The inkwell from Krefeld Gellep (No. 423) comes from a grave dated to the first half of the fourth century (Pirling 1974, 118). By contrast, the find from the Magdalensberg (No. 176) is likely to be early Roman (Claudian or earlier), although Öllerer (1998, pl.3.C) provides no detailed contextual information. The distribution is very wide and reflects the fact that this is not a closely defined type but rather a loose collection of ad hoc designs.

Miscellaneous Inkwells with or without Incised Lines on the Body (Group)

There is a large group of more than eighty simple cylindrical inkwells made from sheet metal that were presumably formed over a mould and lathe-finished. Inkwells of this group can be plain or decorated with incised circular lines (Figure 5.16). The addition of the latter feature is a simple touch, and not typologically significant. On the whole, this is a poorly defined group, with many examples hard to classify, especially if, as is frequently the case, the lid or aperture cover is missing (Bilkei 1980, 69). There may well be inkwells belonging to other types in this group, but without the diagnostic lids and aperture covers, it is impossible to establish this. There is too much variation to define meaningful subtypes but occasionally two inkwells are quite similar, for example, those from Chichester (Figure 5.16c; No. 249) and Rheinhessen (No. 280), which also echo features seen in the elegant, early double inkwells (Figure 5.1d).

Given that this is a loose group and not a close type, it is not surprising that they vary considerably in date (Bilkei 1980, 74; Fünfschilling 2012, 191; Rádnoti 1957, 211). Early examples occur in first-century contexts in August (No. 238), Brindisi (Nos. 245–248), Boscoreale and Pompeii (Nos. 243–244 and Nos. 275–78). Other inkwells in this group are from second- (e.g. No. 260 Ergolding; Nos. 392–393 Avenches) and third-century contexts (e.g. Nos. 233, 236–237 August; Nos. 282–283 Szőny; No. 422 Krefeld Gellep; No. 262 Immendorf; Nos. 250–251 Cologne). The group has a very wide distribution, again due to the simplicity of the design and problems of identification.



5.16. Cylindrical inkwells with and without incised lines from (a) Drnovo (after Petru and Petru 1978, pl. XXIII, 4); (b) Lank Latum (after von Boeselager 1989, fig. 12) and (c) Chichester (after Down 1978, fig. 10.33, No. 46) and an inkwell with dished and protruding lid from Regensburg (after Schnurbein 1977, pl. 110).

Inkwells with Dished and Protruding Lids (Group)

In this loose group, inkwells share a dished lid that extends beyond the body (e.g. No. 145 Regensburg; Figure 5.16d), but there is considerable variation, and in some cases, critical information on the shape of the aperture is simply missing. Thus, inkwells No. 128 and 427 from Cologne and No. 143 from Nida

Heddernheim are quite similar to Type Elsdorf, while others (e.g. No. 142 Mauer an der Url) appear to have flatter, more protruding lids. Poor publication can make it difficult to decide whether an inkwell such as No. 144 from Aquincum belongs to this group, as it is not certain that the lid was associated with the body depicted in the photo. As expected for a loose group, dating evidence is wide-ranging, from the later first to early second century AD (No. 128, Cologne) to the first half of the third century for No. 142 (Mauer an der Url). A possible member of this group from Emona (No. 269) is dated to the first half of the fourth century.

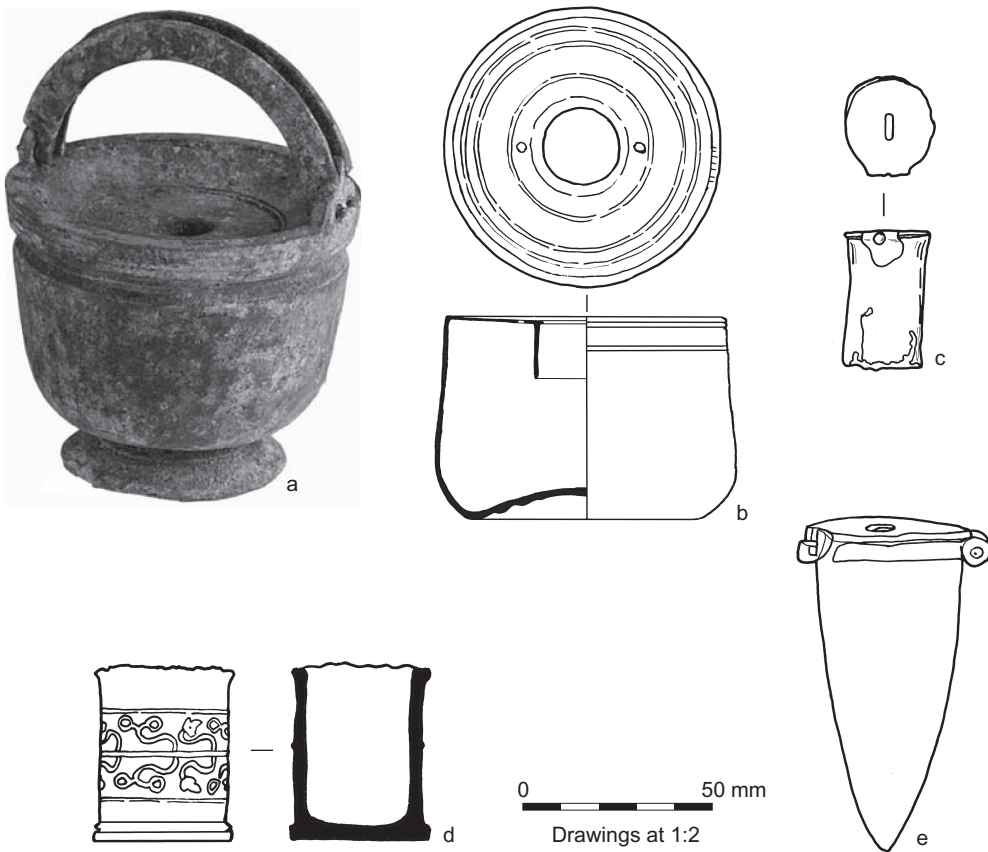
Unusual Inkwells

The following inkwells do not belong to any of the defined types or groups previously discussed; this section is simply a convenient way of discussing unusual inkwells (Figure 5.17).

An inkwell probably from Qumran is shaped like a cup with a dished lid and central opening; fitted to the rim are two semicircular handles that could be folded down when the inkwell was not being carried (Figure 5.17a; No. 124). If it indeed came from the so-called scriptorium at Qumran, it predates AD 68 (Davies et al. 2011, 174–181). There are two parallels said to be from Jordan, one of which may in fact be the same as the inkwell from Qumran (Nos. 482–483; cf. Khairy 1980). Broadly similar in shape is a lead inkwell from Cologne (No. 454). An inkwell from the Rhine near Xanten (No. 219) is shaped very much like Samian examples but is not paralleled in this corpus. A small group (Nos. 220, 425, 426) from Cologne is wider than it is tall but varies in the way the body is treated; one (No. 426) has mouldings reminiscent of Type Biebrich.

An undated inkwell from Augst (No. 117) has double walls; the inner is made of iron and the outer from bronze sheet metal. A small protrusion near the base may have originally connected it to another inkwell, and the exterior is decorated with two bands of incised circular lines. This double construction is highly unusual and presumably for structural support; in this it is different to the unique inkwell from Elsdorf, which has two compartments slotted one on top of the other (No. 125; Figure 5.11b). It may represent an ad hoc production, as might an inkwell from Bregenz crudely made from a thick, folded-together bronze sheet; the lid has a rectangular opening and one side is extended to act as a closing flap (No. 119; Figure 5.17c). There is also an unusual inkwell from a late third to fourth century AD triple burial in Skopje (Macedonia); this is said to be of copper-alloy, ‘on which a silver label with traces of gold plating was attached bearing a vague depiction of a monogram or animal’ (Spasovska-Dimitrioska 1996, 134; Chapter 10).

Another unique find comes from a rich fourth century AD male grave at Zalaszentgrót (No. 68; Figure 5.17d). This is a cast copper-alloy cylinder, with



5.17. Unusual inkwells from (a) Qumran (by kind permission of the Schøyen Collection, Oslo and London), (b) Xanten (after Bridger 1993, pl. 62), (c) Bregenz (after Konrad 1997, pl. 28.A2), (d) Zalaszentgrót (after Bilkei 1980, pl. III, No. 25) and (e) London (after Wheeler 1930, fig. 11.2). Note that the London inkwell may well not be Roman.

two silver wires and a central bronze wire decorating the body in a vegetal design; there is a ring of incised lines at the base. The inlay is reminiscent of Type Noll and may indicate that this inkwell was quite old when placed into the grave.

An inkwell from London (Figure 5.17e; No. 121) has a hinged lid, with a small circular central opening and is larger than most Roman inkwells. At the front is a lock mechanism, which worked effectively like a hinge; the base is pointed, therefore perhaps this inkwell originally rested in a wooden stand or was placed into a hole on a desk. The Museum of London records state that the inkwell was found with a copper-alloy bowl handle, and first-century Gaulish pottery and other Roman finds are known from the same site (61–66 King William Street), although these could of course be residual (pers. comm. Jenny Hall; Lambert 1921, 60). The unusual form suggests that it is not Roman and this inkwell could be medieval or even postmedieval in date.

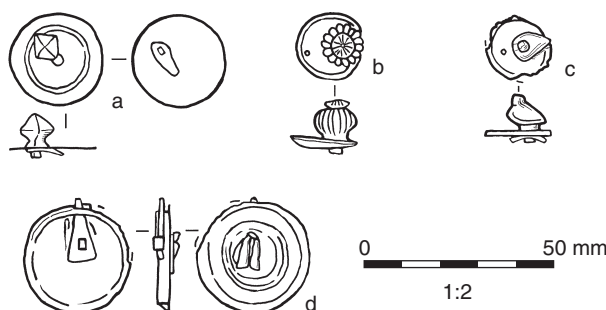
Enamelling is a feature of the vessels of Type Johns, but a cylindrical inkwell from Salona (No. 476) is described as having a lid decorated with a millefiori design. The lid was published with a cylindrical inkwell body but appears to be a modern composite object (Bulić 1894, 164–165, fig. 4; cf. Bilkei 1980, 70).

Hexagonal inkwells like the example from Pompeii (No. 122) and a silver vessel of unknown provenance (No. 450) are rare. The shape is, however, characteristic of the later Roman inkwells of Type Cologne and of the enamelled vessels of Type Johns; there is also an eight-sided inkwell of Type Noll from Terlizzi (No. 42).

Detached Aperture Covers and Lids

Aperture covers and lids obviously reflect chance survival rather than a clear type (Figure 5.18). We have already seen from the complete inkwells that many types, especially those of first- and second-century dates, had an aperture cover with a lock mechanism consisting of a small handle or knob on the upper side and a corresponding small bolt on the underside (e.g. Noll 1937, 4, fig. 3; Öllerer 1998, 141). Only when the bolt was moved could the aperture cover be opened, thus preventing the ink from drying out. Both these aperture covers and the lids into which they could be slotted on some types are presented here in broadly chronological order; where a tentative attribution to type can be made, such lids are cross-referenced. A major problem is the fact that lids of other copper-alloy vessels, notably globular bath flasks (*balsamaria*), are often of identical construction to inkwell aperture covers, and therefore, even when published as part of an inkwell, this identification is not certain (Figures 5.18 and 5.23).

We have seen that inkwells of Type Biebrich, dated to the first half of the first century AD, have a variety of knob shapes on the aperture cover. This includes poppy heads (e.g. Nos. 182, 194) and faceted squares (Nos. 185, 187, 190); it is thus likely that aperture covers with a poppy-head knob (No. 96 Rissstissen; No. 312 Magdalensberg) and faceted square (No. 311 Magdalensberg) also belong to this type (Figure 5.18a–b). There are also a number of zoomorphic aperture covers that have been attributed to Type Biebrich inkwells. The most striking is a bird (Figure 5.18c; No. 302) from a first-century pit within the fort at Zurzach, where it was associated with a stylus but no other inkwell fragments. It should be noted, however, that this could equally well be from a *balsamarium*, such as the enamelled vessel from Burial 8 in Nijmegen, which also has a movable bird on its lid (Koster 2013, 153, fig. 68). A small group of aperture covers decorated with a bee- or fly-shaped knob are known from Augst (No. 299), Eining (No. 300), Kempten (Figure 5.18d; No. 301) and Nijmegen (No. 403). Both the Augst and Nijmegen finds date to the first century AD and the fort at Eining was founded in AD 80. It seems likely that all these examples are from the same, possibly military, workshop.



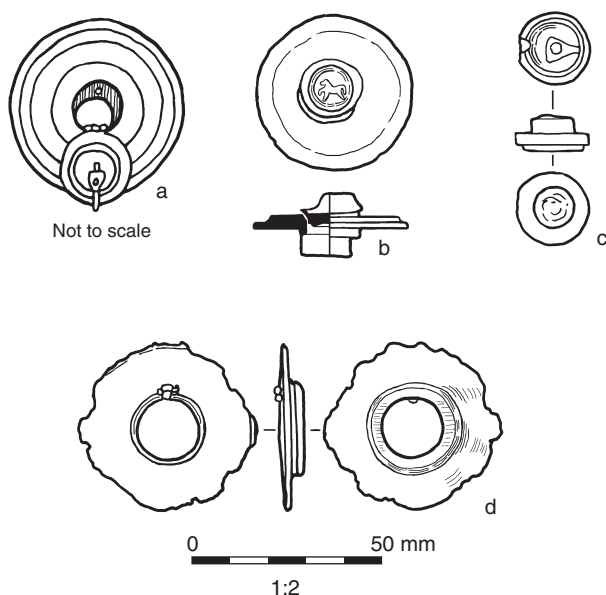
5.18. Aperture covers probably of Type Biebrich inkwells from (a) the Magdalensberg (after Deimel 1987, pl. 33/7) and (b) Risstissen (after Ulbert 1970, pl. 10, 149). Zoomorphic inkwell aperture covers probably of Type Biebrich inkwells: (c) bird from Zurzach (after Božič 2001c, fig. 1) and (d) bee or fly from Kempten (after Flügel 1993, pl. 31, No. 106).

Other aperture covers that have been attributed to this loose group, notably from Augst, vary considerably in size, and some (e.g. Nos. 304–306) seem to me too large to belong to Type Biebrich. A group of small aperture covers from Vindonissa (Nos. 315–324) may also belong, but unfortunately these are not illustrated.

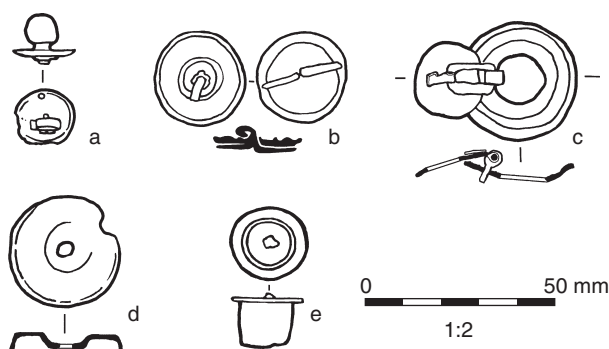
We have seen that inkwells of Type Noll and those of possibly Gaulish manufacture can have quite complicated lids, often distinguished by an inner lip or flange around the dip hole into which a small aperture cover could be slotted (Figure 5.19a). The aperture cover has a knob for moving a small bolt underneath in a similar way to the mechanism on the Biebrich Type inkwells, but this group is distinguished by having a long flange that matches the lip on the lid and provides a secure fit. Two such examples, from London (No. 329) and Nijmegen (No. 332), share a design that might be a stylised animal head; the Nijmegen example is certainly an inkwell judging from associated fragments. There are aperture covers with flanges that are very similar in size to these (e.g. No. 327 Colchester, No. 331 Magdalensberg and possibly No. 325 Augst). Larger examples are from other vessel types such as pyxides or balsamaria (Figure 5.23a–b).

There are a number of lids that have the inner lip or flange around the dip hole that is characteristic of Type Noll and Gaulish inkwells but which are plain. Good examples are No. 379 Caerleon, No. 386 Nijmegen and No. 389 Usk (Figure 5.19d); the lid from Usk is from a pre-Flavian context, demonstrating that some of the design elements are known prior to the *floruit* of Type Noll (Mannning et al. 1995, 135). Some of the other lids are of different shape, not always with an inner lip or not illustrated, and some of these (Nos. 380, 385) are of an earlier date.

A number of aperture covers have been grouped together in the database and catalogue (Figure 5.20); these include small aperture covers with large handles, such as the examples from Dangstetten and Vindonissa (Nos. 372, 375).



5.19. (a) Reconstruction of lid and aperture cover (after Noll 1937, fig. 3), (b) aperture cover from Nijmegen with horse decoration on interior (after Koster 2013, pl. 30, No. 40), (c) small aperture cover with flange from Colchester (after Crummy 1983, fig. 204, 4642) and (d) lid with deep flange from Usk (after Manning et al. 1995, fig. 41.1).



5.20. 'Other' possible inkwell aperture covers and lids from (a) Vindonissa (after Holliger 1986, pl. 14, No. 131), (b) Magdalensberg (after Deimel 1987, pl. 33/8), (c) Longthorpe (after Frere and St Joseph 1974, fig. 33.85), (d) Augst (after Fünfschilling 2012, pl. 5, No. 119) and (e) stopper from St. Severin Cologne (after Pfüffen 1986, fig. 10).

In some cases simple loop handles are quite large (No. 373 Kempten), and in a lid from the Magdalensberg, a loop-headed pin acts as the closing mechanism (No. 374). In an inkwell from the legionary fortress at Longthorpe dated to AD 44–62, both the lid and the hinged aperture cover are preserved (No. 382). A highly unusual inscribed stamped lid from Zurzach (No. 376) may come from an inkwell (Chapter 4), as may No. 371 from Augst.

The catalogue also contains a number of dished and flat aperture covers that may well belong to inkwells, many from the well-published site at Augst. Some of the smallest are effectively just thin copper-alloy sheet discs with a small central hole, possibly to affix some kind of loop. In some cases they may be coverings for a cork stopper as in St. Severin (No. 126), but clearly identification as inkwell lids is highly speculative (cf. Fünfschilling 2012, 192).

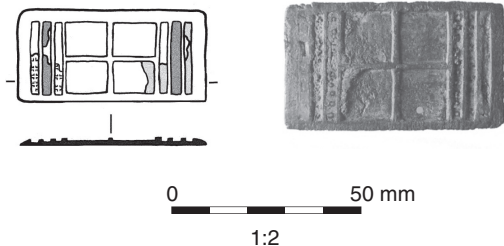
To conclude this section, it should be stressed again that, while many of the catalogued objects are inkwell lids or aperture covers, there are others that could be derived from other copper-alloy vessels. Items not identified with certainty as coming from inkwells are therefore shown separately in the contextual analyses that follow.

RELATED FORMS

Enamelled Vessels of Type Johns

There is a group of enamelled copper-alloy vessels that were clearly made in a small number of workshops and that have long been thought to be inkwells. However, their exact function remains debated (Boube-Piccot 2006, 175; Božič and Feugère 2004, 35–36; Fünfschilling 2012, 192; Johns 1993; Rostovtzeff 1923, 122–123; Thierry 1962, 66). The chain and suspension loops and elaborate decoration are more characteristic of incense or perfume containers, but the small aperture would have lent itself well to use as an inkwell. The possible perforations on the Skopje example (No. 18) suggest use as an incense dispenser but may be a later modification. These vessels are made up of two hexagonal elements forming the top and base and six rectangular panels, all of which were soldered together (Figure 5.21 and Colour Plate 5.2). They vary in height from 46 to 76 mm. Where the top element survives, it is decorated with three concentric bands of enamelled millefiori decoration, usually in red, white and blue (on the technique of enamelling, see Bateson 1981; Butcher 1976, 1977;

Henry 1933; Künl 1995; Moore 1978). There are three small rounded loops at every second corner and the aperture cover had another, central loop. This small aperture cover only survives on the examples from Cologne (No. 8), Larissa (No. 11), Skopje (No. 18) and a vessel of unknown provenance (No. 21). Only for Cologne is there any information on the locking mechanism, which is described as two projections on the underside which could be inserted into



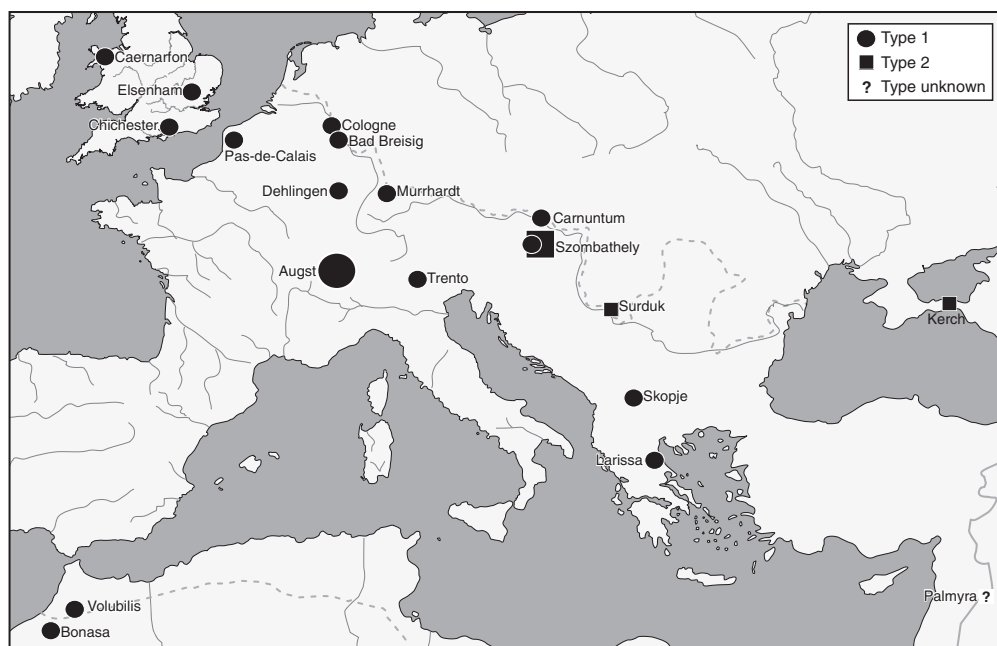
5.21. Panels from enamelled vessels of Type Johns from Caernarfon (after Casey and Davies 1993, fig. 10.5) and Augst (by kind permission of Augst Museum, Photo Augusta Raurica).

breaks in the top of the box (Forsyth 1950, 298). Remains of a chain survive at Bad Breisig (No. 6) and Skopje (No. 18). The fact that these pyxides could be carried or suspended by a chain is one of the reasons for their identification as incense containers.

The side panels occur in two main types, first recognised by Johns (1993), who recorded fourteen examples; the number has now increased to twenty-six vessels. Type I has horizontal bands framing four squares, creating a highly symmetrical chequerboard effect. Type II has arcaded designs set at the top and bottom of each of the six panels; these frame three rectangular strips in the central element. Type II is less common than Type I, but still attested over a wide area. A recent find from Bad Breisig (No. 6) is of Type I but unusual in having a central, broad horizontal band dividing two sets of vertical rectangular panels. The details of the Type I vessels vary both in the layout of the panels and in the chosen colours; for example, while a few panels have two horizontal bands (e.g. No. 1 Elsenham, No. 2 Chichester, No. 4 Augst), all others have three. There is considerable variation in the colour, although red, blue, white and green are always present, and there is usually a tendency to reverse colour schemes in adjoining panels to enhance the visual effect. The individual squares making up both the horizontal bands and the panels have a flower design in varying levels of stylisation. The individual millefiori squares measure between 2x2 mm and 3x3 mm and are made up of glass rods of different colour that are fused together, cut, placed on a metal base and heated so they adhere to each other and the base but not so much that the design dissolves (Forsyth 1950, 297; Johns 1993; cf. Bayley and Butcher 2004, 46–47; Butcher 1976, 45).

Feet survive on quite a few vessels; these can be broadly circular (Nos. 1, 6, 11, 21, 22, 25) or more sharply defined (Nos. 8, 10, 13). While there is variation in the detail of the design, this is clearly a well-defined group, and some examples (e.g. No. 8 Cologne, No. 11 Larissa, No. 13 Pas-de-Calais and Nos. 22 and 25 unknown provenance) could well be by the same maker. An antiquarian find (No. 476 Salona) is described as having a lid decorated with three concentric enamelled bands; however, the body is cylindrical and this appears to be a composite object (Bulić 1894, 164–165, fig. 4; cf. Bilkei 1980, 70).

Unfortunately, many of the complete examples are from museum or private collections without secure provenances, making it difficult to assess the type's distribution. However, it clearly occurs across the Empire, from Britain to North Africa and as far east as the Crimea and Greece. Their distribution (Figure 5.22) may point to production in Gallia Belgica or perhaps the Rhineland (Hobbs and Jackson 2010, 71; Johns 1993, 163; Künzl 1995, 46). However, as yet there is no specific workshop or mould evidence pointing to the location of such workshops. Evaluation of their social distribution is hindered by the lack of detailed context information. Most appear to be from broadly urban contexts, but there is one from a villa at



5.22. The distribution of Type Johns enamelled vessels (author's own).

Dehlingen (No. 9), one from the Roman fort at Caernarfon (No. 289) and two (Nos. 1 Elsenham and No. 19 Trento) from rural contexts. Complete vessels are likely to have come from burials, as is the case for Nos. 1, 6, 10, 13, 18 and 19. There is no available age or sex information, but all are rich graves, exceptionally so in the case of Kerch (No. 10). The earliest burial is that of Elsenham (1), with a *terminus post quem* of 145/148 and an overall second-century date (Colour Plate 5.2). The cremation grave from Trento (No. 19) has a *terminus post quem* of the early third century and the assemblage from Bad Breisig (No. 6) is broadly dated to the third century. The rich grave from Kerch (No. 10) is usually dated to the mid-third century but Johns (1993, 164) suggests a fourth-century date. The panel from a destruction layer on a possible villa site at Dehlingen–Gurtelbach (No. 9) is dated to the third century AD, possibly the period around AD 260. While no detailed context date is available, the fort at Murrhardt (No. 12) from which a single panel is known is dated to between AD 150 and AD 259/260; the panel from Caernarfon comes from a mid-fourth-century context. Thus the type may have been produced from the later second century to the first half of the third century, with most finds coming from third-century contexts (cf. Božič and Feugère 2004, 36). Hexagonal inkwells are known (e.g. No. 122 from Pompeii, No. 450 of unknown provenance and Nos. 69–71 from Cologne), but no enamelled vessels of Type Johns were found with other writing equipment and they are much larger than most other inkwells (see

Chapter 6, Figure 6.1). On balance, these vessels are therefore not considered to be inkwells in this book.

Sometimes tapering rather than rectangular enamelled panels are thought to come from inkwells, as was the case with a panel from Silchester decorated with blue and green enamel in an elegant spiral design (Boon 1974, 64, fig. 21.10). However, these panels with scroll or spiral designs are elements from hexagonal perfume flasks, which typically have a tapering body. Examples are known from Corbridge (Casey and Hoffmann 1995, 24, fig. 3), Bonn (Henry 1933, 143, pl. II) and London (Colour Plate 5.3; Marshall and Wardle forthcoming). Such flasks are known from Britain, Germany, Holland and the Ukraine (Hunter 2012, 92; Worrell 2012, 75–76, fig. 8.7). A more recent close parallel comes from a villa in Oberdorf (Picker 2015, 215, pl. 2, B38).

Another related vessel form has the chequerboard millefiori enamelling of the Type Johns vessels but the design is again set in tapering rather than rectangular panels. From an inhumation in Forcello near Brescia (Italy) comes one such multi-sided enamelled vessel (Venturi 1902, 60–62, fig. 68) and another of unknown provenance is now in the Fleischman collection (True and Hamma 1994, 318–319, No. 165). The decorative elements are very similar to hexagonal vessels of Type Johns, and all these vessels were probably made in the same workshops (cf. Boube-Piccot 2006, 174). The overall shape of the flasks suggests that they once held oils or perfumes; those with handles were possibly suspended from a chain. As with the beautiful enamelled example from Anapa (Russia), it is also possible that these flasks were incense containers (Baumann 1993, 188–189, No. 97). Finally, it appears that the same workshops that produced enamelled vessels also produced other objects such as discs, studs, belt fittings and brooches, commonly attested in Britain and Germany and usually dated to the second and third century AD (e.g. Draper 1985, 27–29, fig. 9.15; Greifenhagen 1967/1968, 28–29, pl. 4.1; Howard-Davis 2009, 735, fig. 393; Worrell and Pearce 2012, 361, fig. 4; for belts, Flügel et al. 2004; for brooches, Bayley and Butcher 2004, 129–130, 177–178, fig. 89; Exner 1939, 63–64, pl. 14).

In conclusion, there were clearly multiple workshops specialising in producing enamelled objects, including vessels, and it seems likely that such workshops were located in Belgium (notably Anthée near Namur: cf. Henry 1933; True and Hamma 1994, 318), northern Gaul, the Rhineland and Britain (Bateson 1981, 19–20; Bayley and Budd 1998, 203–222; Breeze 2012; Exner 1939, 41–44; Künzl 2012, 12–13; Hunter 2012, 96).

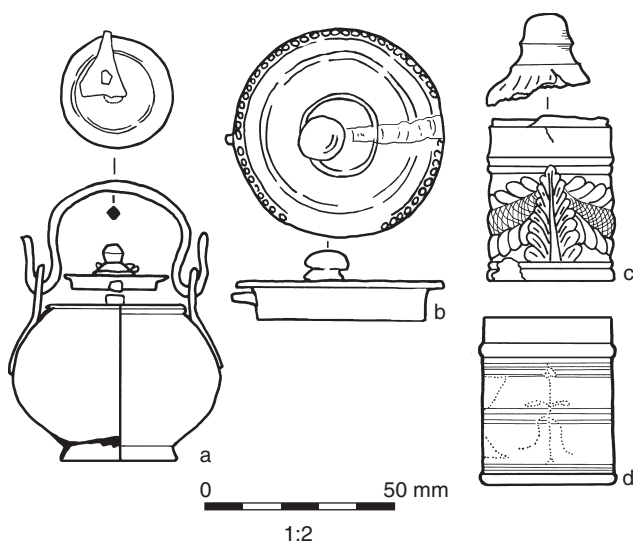
Pyxides and Balsamaria

The term ‘pyxis’ is used in the ancient sources to indicate containers for cosmetics, medicines, magical portions, poison, honey and reliquaries as well as other objects; its shape is not closely defined, but a pyxis is usually assumed

to be cylindrical and to possess a lid (Hilgers 1969, 265–267). Canisters without lids could of course be used for any number of purposes, such as for the storage of cosmetics, or, as has been suggested for Brindisi, for throwing dice (Small et al. 2007, 167). Pyxides are attested in the written sources as being made of copper-alloy, lead or wood but also gold, silver, ivory, iron and glass. The term is used in a similarly loose way in the modern archaeological literature to describe small cylindrical, lidded containers made from a range of materials. This includes bone, where both plain cylindrical vessels with circular lines and ones decorated with figural motifs occur (Béal and Feugère 1983). Of interest to us here is the distinction between metal pyxides and inkwells, as there is clearly a danger of misidentification. While both vessel forms are of similar size, often with circular lathe-turned decoration on the body and while both can have hinged lids, crucially, pyxides do not have a covered central aperture. Instead, the lid has the same diameter as the vessel body and often has a baluster-shaped handle (Franken 1998, 93–94). Another feature of pyxides appears to be the presence of suspension loops and chains, as attested, for example, in Pompeii and Vindonissa; these vessels are usually interpreted as incense containers (Holliger 1987, 34–36, No. 171, figs. 9–10; Schwarz 1997, 80). However, especially if a vessel is fragmentary, it is clearly not always possible to distinguish between pyxides and inkwells, and in antiquity, some pyxides may have been used as inkwells and vice versa (Fünfschilling 2012, 190). Cylindrical vessels without lids thus cannot be classified with certainty.

Similar difficulties apply to finds of individual lids. Hinged circular aperture covers with a central rectangular opening have sometimes been identified as inkwell lids but are now thought to have been associated with *balsamaria* with a globular body and handle (e.g. No. 313 Rottweil, No. 314 Oberwinterthur). These *balsamaria* are quite a rare type (Petrovsky Type XIV.1) usually dated to the late first to late second century AD and possibly produced in the Balkans; good examples come from Intercisa (e.g. Szabó 1984, figs. 3 and 9; cf. Petrovsky 1993, 11) and Nijmegen (Figure 5.23a; Koster 1997, 83, No. 112). There are also aperture covers with a bolt and deep flange that are larger in size than those from inkwells and probably come from such vessels (No. 326 Caerleon, No. 328 Kempton, No. 334 Verulamium). Clearly the same workshops produced *balsamaria* and inkwells, and elements of the design were interchangeable between these vessel types.

Calvi (1970, 1986) suggests that a group of cylindrical silver vessels like those from Este and Altino in Italy (Figure 5.23c) functioned as inkwells. These silver containers once held glass vessels and are largely dated to the first century AD. They are of about the right size but vary in being decorated with figural scenes or acanthus leaves and garlands and having closed, conical lids. The lid is the same diameter as the vessel body and has no dip hole. These vessels are therefore classed here not as inkwells but as pyxides (cf. Božič and

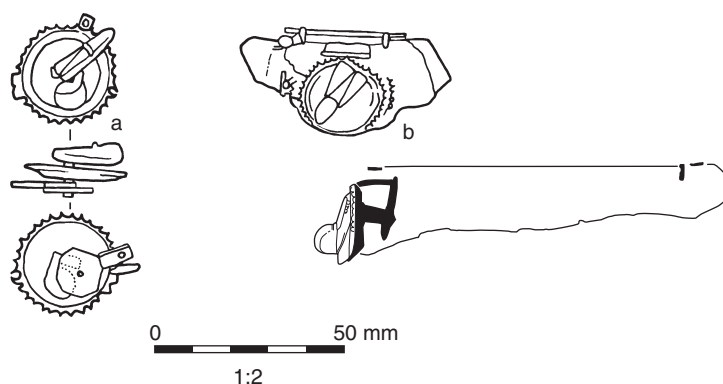


5.23. (a) Balsamarium from Nijmegen (after Koster 1997, No. 112), (b) large aperture cover from Kempten (after Flügel 1993, pl. 31, No. 107), (c) silver vessel from Este (after Calvi 1970, fig. 1) and (d) silver pyxis or inkwell from Augst (after Fünfschilling 2012, pl. 6, No. 148).

Feugère 2004, 35). On the other hand, for a silver vessel from Augst (No. 442; Figure 5.23d) the lid is missing, so it may be an inkwell; it shares with the silver pyxides a circular moulding about a quarter of the way down from the rim, which frames the decoration on the body and perhaps marks the line to which the lid extended (Fünfschilling 2012, 192, 220, pl. 6, No. 148; Schwarz 1997, 80–82). A very similar ridge occurs on a group of lead containers from the fountain of Anna Perenna at Rome; some were inscribed with curses, and in seven cases, they still preserve a human figure made from wax and other organic materials (Piranomonte 2016, 79). The fountain also contained lamps and curse tablets and was clearly the centre of magical activities, for which these lead containers may have been purpose-made.

Box Fittings

Small discs with serrated edges are sometimes thought to be derived from inkwells. Thus an inkwell from the Saalburg (No. 154) is taken by Fünfschilling (2012, 193) to provide a typological link between inkwell lids with rotating aperture and individual finds of such small discs with serrated edges. Examples of the latter are known from Augst from a context dated to AD 80–150 (No. 394), from probably Augusto-Claudian layers at the Magdalensberg (Figure 5.24a; Nos. 395–396), from a grave dated to the second half of the first century AD from Vindonissa (No. 397) and from the rich mid-first century grave in Brindisi (Fünfschilling 2012, 193). However, the report on the Brindisi



5.24. Serrated discs from the Magdalensberg (after Deimel 1987, 189, pl. 40, 3/4) and box fitting from Nijmegen (after Koster 2013, pl. 14.77).

grave sees the object as part of a box (Cocchiaro and Andreassi 1988, 160–175) and this is confirmed by a recently published find from Nijmegen, which preserved not just the lock mechanism but also other parts of a box (Figure 5.24b; Koster 2013, 188, figs. 109–114, pl. 14.77). Another well-preserved box with such a lock is known from Pompeii (Roberts 2013, 282, fig. 364). All these serrated discs have therefore been classed as box fittings and not inkwell lids for this volume.

Lanterns

Lanterns in the Roman world are high-status objects, designed to be used outside the house; their composite nature means that they very rarely survive intact. Lanterns occur in high-status Gaulish graves from 20 BC onwards and are common finds in Pompeii and Herculaneum (Bailey 1996, 110–112; Bémont and Beck 1989; Eckardt 2002, 229, fig. 101; Feugère and Garbsch 1993, 163).

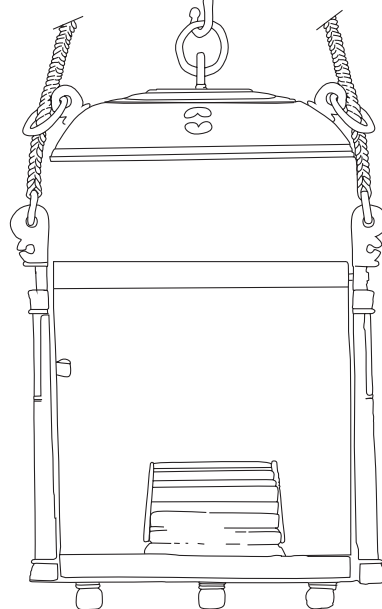
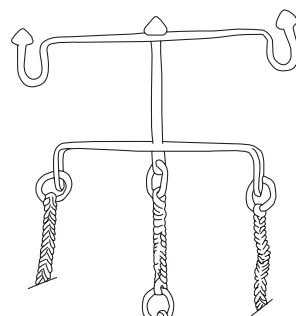
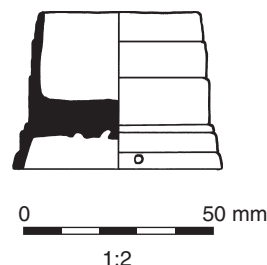
At first glance the burners of such lanterns are very similar to inkwells (Figure 5.25). An excellent example is known from Haltern, where the vessel was described as a reworked inkwell. This is a cylindrical copper-alloy vessel with a diameter of 4.5 cm and with a stepped base and a series of double lines or mouldings decorating the body (No. 459; Müller 1997, 39, fig. 18.70). This was cut off at the top and two small tubes were soldered onto the sides and a wick holder inserted into the interior. Another well-preserved lantern burner is known from the Saalburg (No. 466; Jacobi 1897, 460, fig. 72.4) and the type occurs in Gaul in contexts dating from the Augustan period to the third century (Canny 2012; Feugère and Garbsch 1993, 148, fig. 4). Where the burner has become separated from the lantern, misidentification is quite common, but while burners also have a cast and turned body, any mouldings are on the base, which is usually higher and stepped. The key diagnostic features are the

wick holder attached to the interior and the two lateral tubes, but all those elements are easily lost and rarely survive. Some objects identified as pyxides also appear to be lantern burners, even if the central wick holder is missing. Thus, finds from Vindonissa (No. 467) and Baden (No. 456) are described as pyxides but are in fact lantern burners (Holliger 1986, 28, pl. 14, Nos. 135–136; Holliger 1989, 74, No. 62, pl. 6). Similarly, three objects listed as inkwells in the Museum of London are probably lantern burners. The three are said to be from St Martin's-le-Grand (No. 460), Gracechurch Street (No. 461) and an unspecified London provenance (No. 462). All have a base diameter of between 46 and 48 mm and No. 462 still has two narrow, rectangular polished strips at opposing sides of the body, presumably from the attachment of tubes as in the Haltern burner.

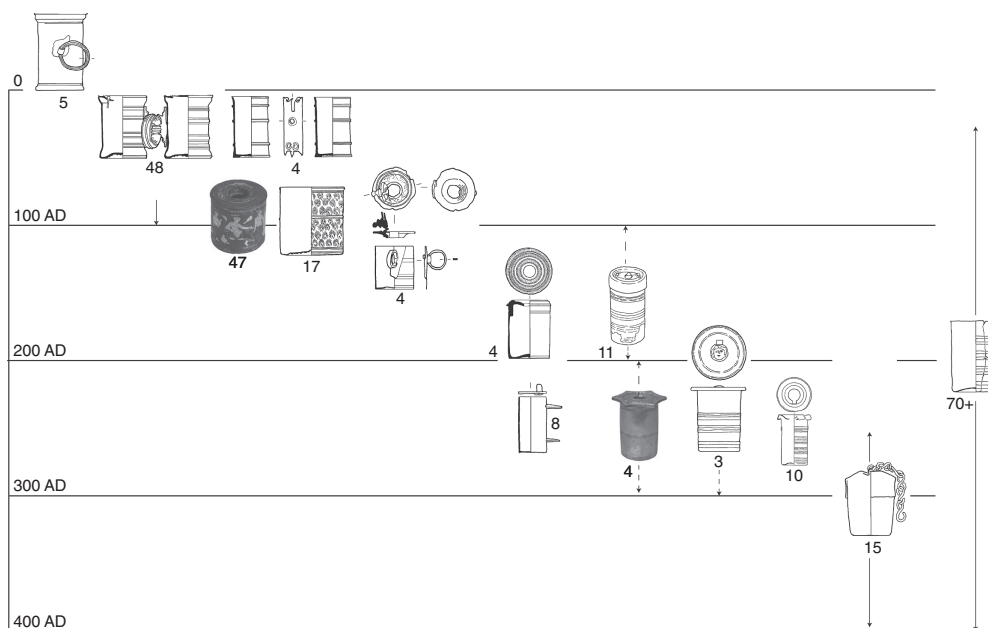
CHRONOLOGY AND CONCLUSION

This chapter has discussed the material catalogued in the online appendix (<https://dx.doi.org/10.5284/1039969>), distinguishing between 'types' that were probably made in a limited number of workshops and broad groups that reflect similar solutions to a design requirement. As this is obviously not a complete catalogue, and as significant numbers are very poorly illustrated, I would expect the picture to change as new data become available, and as with any typology, other researchers may attribute individual inkwells to different types or groups. A significant problem for further analysis is the fact that many lids published as inkwells could well be derived from other vessel forms, in particular globular bath flasks (*balsamaria*); lids are therefore always shown as a separate category in the analysis of their social distribution (Chapter 7).

An interesting question to consider is whether and how the use of inkwells changed over time. It has been suggested that there was a dramatic increase in writing from the first century BC onwards (Woolf 2009, 63–64; cf. Harris 1989, 175–284). There is more debate about when a decline in literacy occurs in the late Roman period.



5.25. Reconstruction of a lantern from Herculaneum (after Bailey 1996, pl. 151) and lantern burner from Baden (after Holliger 1989, pl. 6, No. 62).

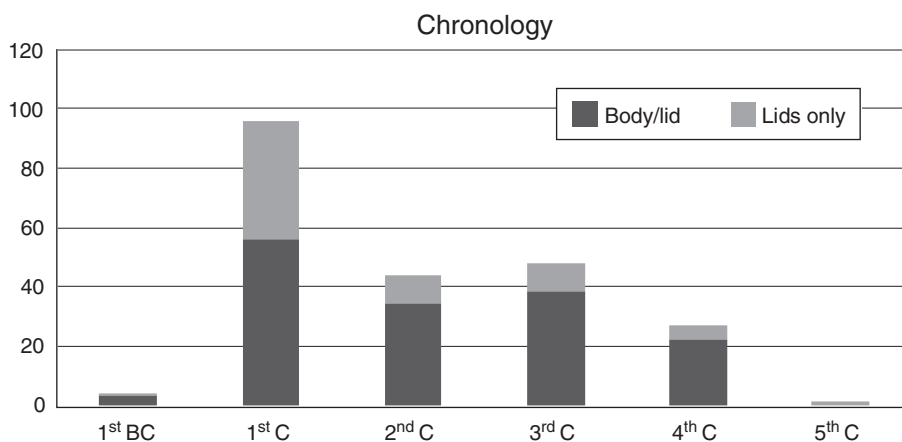


5.26. Metal inkwell types through time (author's own).

Harris (1989, 285–322, esp. 314–315) argued that there was a marked decline from the third century AD onwards and notes that even decurions could be illiterate (cf. Hanson 1991, 170–175). Others have taken a less negative view, pointing to the considerable late Roman bureaucracy, although it is of course important to avoid modernising assumptions and instead to note that Roman bureaucracy was very different to modern ones (e.g. Heather 1994, 181–186; cf. Jones 1949; Kelly 1994; Phang 2007, 289–291; Woolf 2000, 891–892).

Inkwells are not a Roman invention. Ceramic inkwells with a broad flaring base with upturned edge are attested for the Hellenistic period and simple globular examples come from the fifth century BC Porticello shipwreck (e.g. Eiseman 1975; Eiseman and Ridgway 1987, 60–62; Sjöqvist 1959); metal examples of Hellenistic date appear to be more commonly of lead, but some copper-alloy inkwells are also known from this period (Deonna 1938, 255–256, pl. 81; Erlich 2017, 46–49).

Returning to the certainly Roman examples, we can visualise and analyse the chronological data generated by this project in two ways. First, we can show the distribution of ‘types’ across time (Figure 5.26). While this shows that inkwells occur throughout the Roman period, it is clear that inkwells of Type Biebrich and Type Noll (and related forms) very much bias the distribution towards the first and early second century. While later types are known, they are less frequent. This may reflect a real trend, or be the result of publication bias towards more elaborate examples. It could also be a consequence of groups with a wider date range not being represented on the graph; thus there



5.27. Inkwells (and inkwell lids) with context dates (Total: 220).

are more than eighty cylindrical examples in my catalogue, many of which are of a third-century date. In Pannonia, mapping the distribution of dated examples shows a clear emphasis on the third-century types (Bilkei 1980, fig. 12).

Another way of presenting the data is to simply tabulate all recorded context dates, that is all catalogue entries for which a context date (however wide-ranging) has been provided. There are 220 such entries, sixty-seven of which relate to lids, some of which, as we have seen, may be derived from other vessel forms. Where the context date spans two or more centuries (e.g. AD 80–150), it has been attributed to the later date (i.e. second century AD) although it should of course be acknowledged that this method will increase the representation of residual material. Uncertain or suggested context dates have been included to increase the dataset. There are well-known issues with dating layers especially from the middle and later Roman period, but nevertheless we can at least begin to get an impression of use and deposition over time.

The graph in Figure 5.27 shows clearly that there is a major peak in the use of metal inkwells in the first century AD. Here we may see a diversification and specialisation in the materials available to a population that is engaging more intensively with literacy, even if the number of people able to write was still relatively small. However, inkwells also occur commonly in provincial graves and other contexts in the later second and third century AD. By the fourth century, inkwells begin to be rare finds, perhaps reflecting that writing was becoming an unusual and powerful skill. Many of the dated finds are from graves, explored more fully in Chapters 9–11.

SIX

A PRACTICE TURN: THINKING ABOUT INKWELL USE

In this section, I briefly consider the relationship between inkwell design and the practice of use. What are the design affordances, and is there evidence for actual use (cf. Swift 2014, 203–205; 2017)? Unfortunately, it has not been possible to examine many inkwells in person, and I am therefore unable to make systematic observations about the ways in which objects were modified by their eventual users. Instead, this chapter will consider aspects that are not normally discussed at all, in particular volume and portability. The presence or absence of handles gives an interesting indication of how portable the inkwells were intended to be. The size of an inkwell has obvious implications for the amounts of ink that could be used and may give insights into the practice of writing. We will also examine how the volume of metal inkwells compares to Samian examples to establish whether inkwells made from certain materials may have been preferred for communal use.

PORTABILITY AND DOUBLE INKWELLS

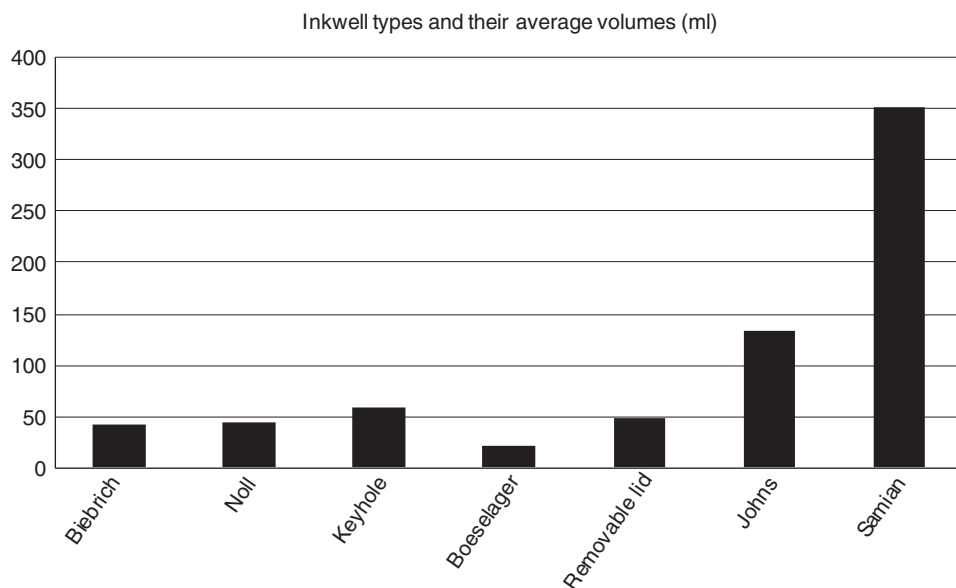
The presence of handles may indicate whether an inkwell was intended to be carried. Alternatively, the loop may have served to secure the inkwell to a desk or to other writing equipment when carried as part of a set. Of the twenty examples recorded as having handles on the side, five are of Type Biebrich, five of the early double-inkwell type and six of Type Noll. The remainder are of the Gaulish or Noll-related types. This demonstrates that side handles are

very much a feature of the earlier inkwells, predating the early second century AD. This is supported by the iconographic evidence. Some of the inkwells shown on Pompeian wall paintings depict a handle at the side of the vessel (e.g. Croisille 1965, pl. CX, Nos. 207 and 208), and double inkwells with a loop on the central element occur on the Atimetus monument, dated to the mid-first century AD (Figure 2.7) and the tomb of Statorius Aper, which is of a first- to second-century date (von Boeselager (1989, 227–228, figs. 14–15); a single inkwell with loop is indicated on the tombstone of Primigenius from Aquileia (Figure 5.4). It is of course possible that after this date inkwells were still carried in portable leather sets, but perhaps secured by leather straps rather than a loop handle. The changing frequency of handles may indicate a change over time in the importance of having portable writing equipment, or in the need to secure writing equipment to inkwells.

The demands of record keeping sometimes necessitated the use of two inkwells, one for black and one for red ink, with the red ink mainly used for headings. Such double inkwells are held together by a small rectilinear element and their use for these two inks is supported by an inscription on an example from the Magdalensberg, Austria (No. 197; Figure 5.2c). Much more unusual is a copper-alloy inkwell from a second-century grave in Elsdorf (No. 125; Figure 5.11a–b) where the inkwell was provided with two compartments, which are slotted into each other. This was presumably to store dry ink below and ink diluted with water ready to use above, or to store black and red ink separately. Double inkwells are not very common, and overwhelmingly early in date; I have recorded ten pairs of Type Biebrich, three of the ‘elegant early’ type and three of Type Noll. The apparent rarity of later Roman double inkwells might indicate a decline in specialist equipment for professional scribes or simply a change in practice with separate and unconnected inkwells used for different colours.

VOLUMES AND MATERIALS

We have discussed the different materials employed to make inkwells in Chapter 4, but it is worth noting here that these materials, apart from their relative cost, would have implications for practice. For example, ceramic inkwells may have absorbed considerable amounts of ink, while glass may be thought to be a more suitable material. Samian was less porous than other ceramics, but even Samian inkwells are not slipped on the inside due to their narrow aperture, with usually only a few runnels of slip visible (Webster 2001, 294, fig. 28.1; Willis 2005, 97). Dark staining has been noted on the interior of a small number of sherds, which may indicate that some kind of organic material was used to seal the interior vessel surface (Fünfschilling 2012, 194).



6.1. Estimated volume averages for different types of metal inkwells and for Samian inkwells; note that enamelled vessels of Type Johns are hexagonal and few have published measurements.

It is obvious that there are considerable size differences both within metal inkwells and between metal and Samian inkwells (Colour Plate 6.1), but to test this systematically and to establish whether there were changes in size though time, complete examples of the more distinct inkwell types can be used (Figure 6.1).

Of the forty-eight inkwells of Type Biebrich (Chapter 5, Figure 5.2) in my database, eighteen are complete and have detailed measurements. These range in height from 34 to 53 mm and in diameter from 26 to 43 mm, with an average height of 43 mm and average diameter of 35 mm. The seven complete double inkwells tend to be amongst the larger examples within this type. I normally have no information on wall thickness, but we can describe all these inkwells as of roughly cylindrical shape and can calculate an *estimated* average volume of about 43 ml. For inkwells of Type Noll sixteen (out of forty-seven) examples have detailed measurements; inkwell No. 59 is exceptionally large (height 85 mm, diameter of lid 67 mm), but it appears from the photo that a normal-sized lid decorated with an ivy tendril and running scroll is set within an additional outer lid decorated with a vine tendril; therefore, this example has been excluded from the discussion. The other well-preserved inkwells of Type Noll are between 37 and 45 mm high, and lid diameters vary between 27 and 48 mm, with an average height of 41 mm and diameter of 36 mm. The average estimated volume is 44 ml. Inkwells of Type Boeselager are quite rare and were probably made in Cologne in the first half of the third century; this is reflected in their quite standardised size. These inkwells are tall (average height

47 mm) but narrow (average diameter 24 mm), with an average volume of only 21 ml. Measurements for six keyhole-type inkwells dated to the second to third century are available; these are slightly larger, with an average height of 55 mm and average diameter of 36 mm, and an estimated average volume of 59 ml. The ten examples of the late Roman 'removable lid' type with recorded height (average 53 mm) and diameter (average 32 mm) measurements have an average volume of 48 ml. Overall, estimated average volumes for copper-alloy inkwells range from 21 to 59 ml; there is no clear trend over time, although it appears that the later forms (keyhole-shaped opening and removable lid) are somewhat larger. Hexagonal vessels of Type Johns are very much larger than most recorded metal inkwells, with heights ranging from 46 to 76 mm and width from 44 to 54 mm. Unfortunately, both height and width measurements are only available for three examples; for ease of calculations, average volumes were calculated as if the vessels were cylindrical, resulting in an average volume estimate of 133 ml.

How do these metal forms compare to inkwells in other materials? We have seen previously that glass inkwells are rare and that their function is still debated, so in the following I will focus on the ubiquitous Samian inkwells (Ritterling 13) as a comparison for those of metal. As we have seen (Chapter 4), the use of Samian inkwells peaks in the first century AD, meaning that they provide a chronological comparison for inkwells of Type Biebrich and possibly those of Type Noll. It has long been noted that Samian inkwells are larger than metal ones, perhaps suggesting that the increased volume of ink was required by heavy users such as archivists and professional scribes (Božič and Feugère 2004, 36). Another suggestion is that Samian inkwells contained wax rather than ink (Fünfschilling 2012, 194) but it is difficult to see how wax would have been extracted from them, and a recent find of a Samian inkwell from the harbour at Voorburg-Arentsburg in the Netherlands contained ink (Driessen and Besselsen 2014, 187, fig. 8.17).

Discussing Samian inkwells in various fabrics from Britain, Willis (2005, 97) notes heights of around 70 mm and diameters of 80–95 mm, although even larger examples of up to 110 mm in diameter are known (pers. comm. Gladys Monteil). I recorded a number of complete examples (e.g. Brulet et al. 2010, 65, 187, 197; Fünfschilling 2012, pl. 9.254; Genin 2007, pl. 45, No. 12; Museum of London on-line database; <http://collections.museumoflondon.org.uk/online/search/#!/advanced>). Samian inkwells are not cylindrical, but if we treat them as such for ease of comparison and calculation, we arrive at an estimated average volume of about 352 ml. Samian inkwells are therefore indeed much larger than all metal inkwells (Figure 6.1). The only exception are hexagonal vessels of Type Johns, but as we have seen, these may well not have been inkwells at all.

What do these volume calculations reveal about ancient practice? It is difficult if not impossible to calculate ancient ink use, although it would be very

interesting to carry out some experimental work. Cherrell Avery, a modern calligrapher, has suggested to me that a standard bottle of ink (with major brands, such as Winsor and Newton Parker or Waterman, usually containing between 30 and 60 ml of ink) would last a considerable amount of time, possibly writing five days a week for a month. Modern bottle sizes are very comparable to metal inkwell volumes and indicate that substantial amounts of text could be written with them. This also explains the need for closely fitting lids, so that ink did not dry up between episodes of use. If we disregard Type Johns 'inkwells', this still leaves a puzzle about the size of Samian inkwells, which are too large to be for individual use. Along similar lines it has been suggested that a very large ceramic inkwell from the legionary fortress at Haltern was used by several scribes (Hanel 1995, 72). While use by a group of scribes is possible, I find it difficult to imagine how multiple scribes used a shared inkwell without spillage. Perhaps these large Samian inkwells were for the storage of ink, which was then decanted into metal or organic containers?

CONCLUSION

Inkwell use was not straightforward: inkwells vary hugely in shape, decoration and size and not all appear to have been designed to be portable. The use of double inkwells for red and black ink seems to be an early feature, while for the later Roman period a single inkwell, presumably filled with black ink, appears to have been deemed sufficient. We have seen that metal inkwell volumes range from 21 to 59 ml, broadly in line with modern ink bottles and clearly providing enough ink for several days or even weeks of writing. Of course inkwells would not normally be filled to the brim so that there is no spillage, but equally they cannot be almost empty so that pens can be dipped easily. One of the features only really appreciated when handling ancient inkwells is how 'fiddly' many of the closing mechanisms are. Many lids have tiny knobs and delicate sliding mechanisms, which cannot have been easy to operate. It is worth reiterating here that the practice of writing in ink of course included a range of activities. The medium (be that papyrus or wood) had to be prepared, ink had to be obtained and mixed with water and the pens had to be cut and the tip re-sharpened regularly during use. Instructions for modern calligraphers illustrate well the different techniques used (Johnston 1962, 17–27, figs. 17–36), and a twelfth-century source indicates that a busy scribe might have to sharpen his pen sixty times a day (De Hamel 1992, 29); based on ancient papyrus evidence, pen sharpening may have taken place every fifty lines (Kidd 2013, 241). The fine motor skills required in writing legibly and fast with these tools clearly had to be learnt, as had the ability to cope with poor pens or ink that was too runny or too thick. Competent scribes would have maintained and cleaned

their equipment regularly. The physical properties of inkwells and the ways in which these changed over time would have resulted in differences in practice and may have related to gender or profession, and whether inkwells were intended for display or regular use. In the following chapter, I will explore the contexts of inkwells systematically, both in terms of their spatial and social distribution.

SEVEN

THE SPATIAL AND SOCIAL DISTRIBUTION OF INKWELLS

This chapter examines the spatial distribution of selected inkwells and provides a systematic assessment of the contexts within which this particular form of writing equipment was used. It is not possible to compile a ‘complete’ corpus of copper-alloy inkwells from across the Roman Empire, and what is presented here is of course heavily influenced by publication levels. Thus a convenient overview of material from a province or region will hugely increase its apparent significance (e.g. Bilkei 1980 for Pannonia). Conversely, a recent survey of writing equipment from Spain identified only three metal inkwells, despite plentiful evidence for ceramic inkwells, styli and seal-boxes (Alonso et al. 2014). Detailed publications of site assemblages, in particular from Augst (Fünfschilling 2012) or Nijmegen (Koster 1997), will obviously also increase numbers, although it should be noted that for Augst the total includes forty-two lids, not all of which may in fact be of inkwells. Similarly, a visit to a single site hugely increases numbers; for example, at Cologne I recorded twenty-one previously unpublished examples.

Listing all sites with more than ten recorded examples (Table 7.1) yields some surprises, such as the significant numbers from the early site at the Magdalensberg (Austria); this may be due to its economic importance but also reflects publication levels (discussed under ‘Urban Sites’ in this chapter; Deimel 1987; Öllerer 1998). Conversely, there are some sites with apparently low numbers such as Rome where the relative rarity of metal inkwells is

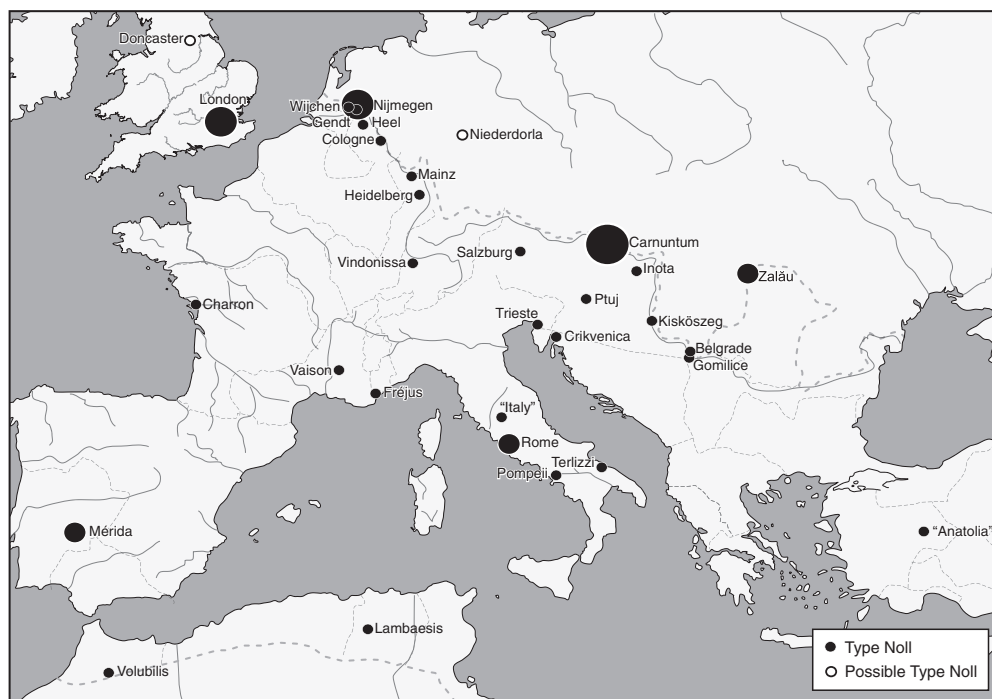
TABLE 7.1. *Sites with more than ten recorded inkwells*

Site	Recorded numbers
Augst	57 (incl. 42 lids)
Cologne	42
Vindonissa	19 (incl. 11 lids)
Magdalensberg	14 (incl. 9 lids)
London	11 (incl. 3 lids)
Intercisa	14
Nijmegen	14 (incl. 3 lids)
Pompeii	12

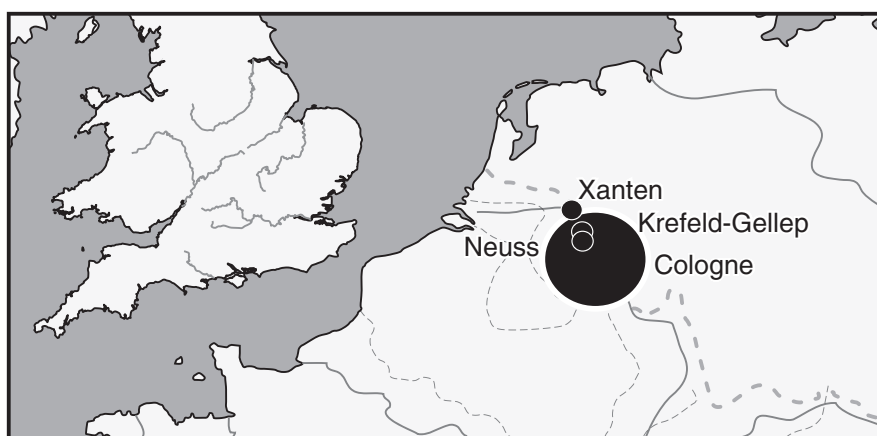
clearly down to the lack of published material. Even for Pompeii, there are in fact at least thirty-four inkwells in the Naples Museum alone rather than the twelve recorded by me (pers. comm. R. Berriola and V. Sampaolo).

Occasionally, we get glimpses of ‘lost’ material, such as the hundreds of styli (and probably other objects) from the harbour in Ostia sold on the antiquities market (Drescher 1988). Language skills, access to the published literature and personal contacts with finds specialists mean that the survey is more thorough in some areas, such as Germany and Britain, than others. Nevertheless, a corpus of 440 metal inkwells provides a basis from which to explore the use of these objects. It is not my intention to map all the material (cf. Alonso et al. 2014, fig. 15; Bilkei 1980, fig. 10; Derks and Roymans 2002, figs. 7.5–7.6 for province-wide surveys), but instead I will contrast the distribution of selected types. We have already seen the wide distribution of the early Type Biebrich inkwells (Figure 5.3), and an even wider spatial range can be observed for the Type Noll inkwells, thought to have been produced in northern Italy (Figure 7.1; Chapters 4 and 5). Type Noll inkwells have been found along the Rhine and in Rome’s eastern European provinces, but there are now also examples from North Africa and Spain.

In contrast to the wide distribution of what were clearly high-status objects, there are some types that have much more tightly defined regional distributions. Thus, Figure 7.2 shows the highly localised distribution of Type Boeselager inkwells; inkwells of Type Elsdorf-Cologne-Lamersdorf and of the elaborate silvered lids similarly centre around Cologne (see Chapter 5). These much tighter distributions probably reflect the output of one or two workshops, with only the odd example being taken or traded further afield. Some of the later types may have slightly more easterly distributions than earlier forms, as demonstrated by the inkwells with keyhole-shaped openings in the lid and those with removable lids with or without chains (Figure 7.3 and Figure 5.15). The occasional example still reaches as far west as the Rhine, but the majority are clearly from further south and east.

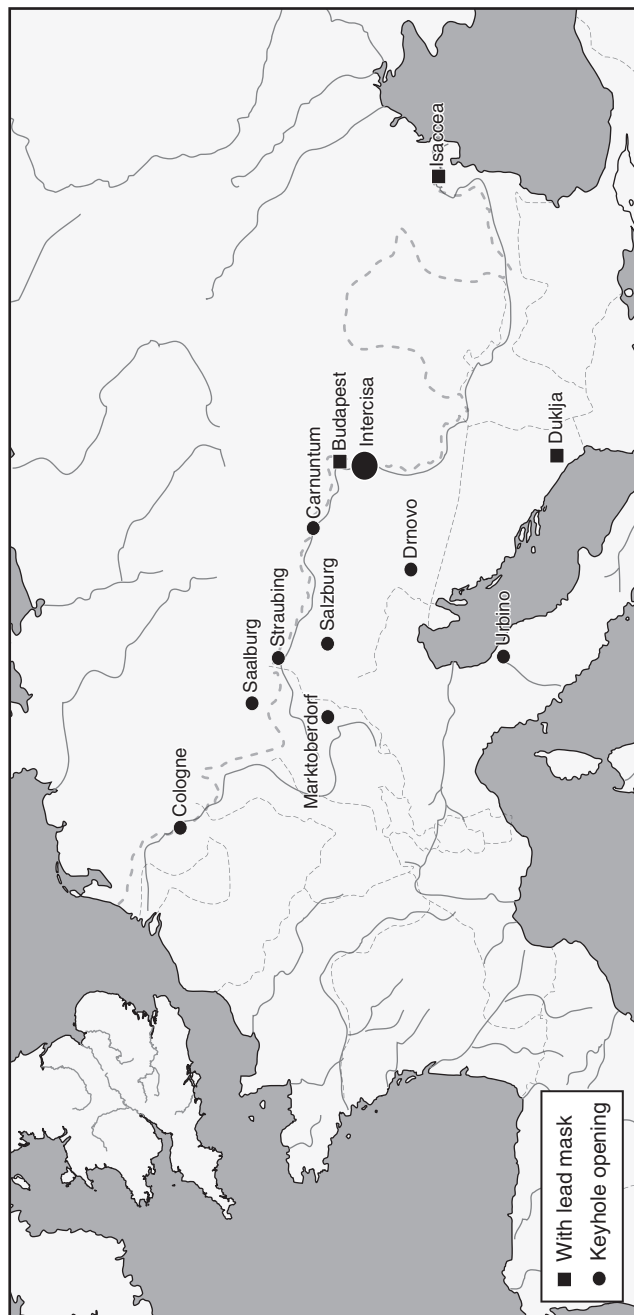


7.1. The distribution of inkwells of Type Noll (author's own).



7.2. The distribution of inkwells of Type Boeselager (author's own).

There are some inkwells from beyond the frontiers. The possible inkwell from Kerch (No. 10) on the Crimean peninsula is thought to be from the grave of a Sarmatian warrior (Henry 1933, 139–141; Johns 1993, 164; Rostovtzeff 1923, 110–122); this area was for some time a Roman client kingdom but, by the time of the burial, could be described as being outside of official Roman

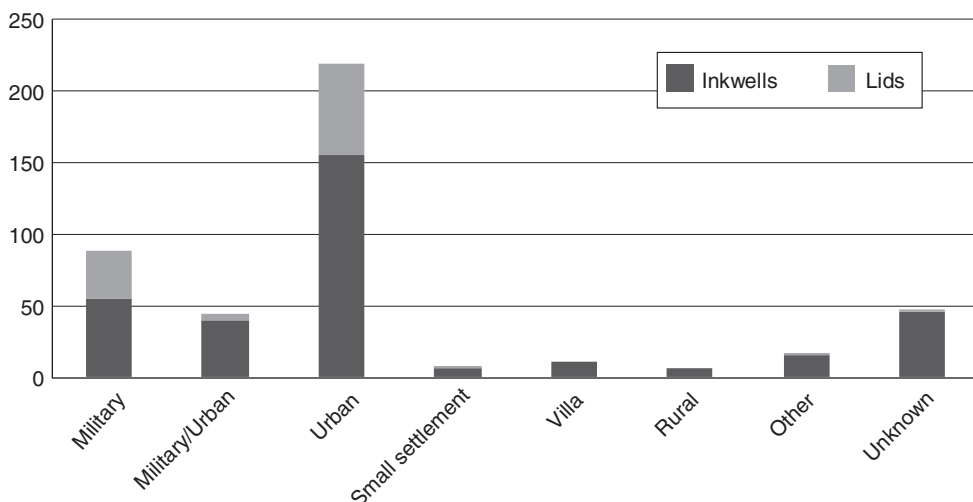


7.3: The distribution of inkwells with keyhole-shaped opening (author's own).

control (Andrási 2008, 1–9; Bekker-Nielsen 2006). Overall, inkwells remain relatively rare compared to other imported copper-alloy vessels (e.g. Eggers 1951; Hrnčiarik 2013; Kunow 1983; Lund Hansen 1987). Thus the published volumes of the exhaustive ‘Corpus der römischen Funde im europäischen Barbaricum’ list a few pyxides (e.g. Vol. 1, pl. 17; Vol. 4, pl. 129; Vol. 6, pl. 132) but only one inkwell. This stamped example from Althaldensleben (No. 87) is a stray find from a cemetery that produced two other Roman copper-alloy vessels. A number of other possible inkwells from the Free Germany (information kindly provided by Thomas Schierl and Klaus Frank) are about to be published. Three are from settlement sites (No. 240 Bad Langensalza–Ufhoven; No. 294 Zimmern; No. 418 Niederdorla), the latter located near an important sanctuary (Behm-Blancke 2002). A possible inkwell (No. 291) from Wechmar comes from a grave shown osteologically to be that of a child; the cemetery appears to be of a community that may have had links to the Roman military (Kleemann 2007). An inkwell grave described as that of a woman on the basis of the grave goods from Leverkusen Rheindorf (No. 424) also had a handled copper-alloy vessel, beads, a brooch, fragments of a bone comb and ceramic vessels (pers. comm. Klaus Frank; cf. Frank 2011). The neighbouring grave contained a stylus and its silver container, suggesting literacy amongst the Germanic elite buried here; other writing equipment, notably styli, does occasionally occur in rich graves in the Barbaricum (Lichardus 2002; *Corpus der römischen Funde im europäischen Barbaricum* [CRFEB] *passim*).

SOCIAL DISTRIBUTION: WHO USED INKWELLS? SITE LEVEL ANALYSIS

In addition to simply mapping the spatial distribution of inkwells, it is important to systematically examine the context of their use. Unfortunately that is often rather difficult for this particular class of object as copper-alloy inkwells are relatively rare finds across the Empire and many of the more elaborate finds are now in major museum collections without secure provenances. Before considering the funerary evidence in Part III, let us briefly consider the overall ‘social distribution’ of inkwells. The term describes an attempt to quantify and visualise the information on the cultural milieu in which an object type has been found (Eckardt 2005; Eckardt and Crummy 2008; cf. Derks and Roymans 2002; Hutchinson 1986). It should be noted that any social distribution analysis is much more likely to produce reliable and meaningful results if a single province or region is targeted, and it is reasonably certain that the majority of objects from that area has indeed been recorded. This cannot be said for copper-alloy inkwells, where there are large and obvious lacunae (e.g. in Spain, parts of France and Italy) and where recording was of necessity heavily biased towards major sites with good publication records. Nevertheless, Figure 7.4 provides an overall assessment of the contexts in which inkwells were used.



7.4. The social distribution of inkwells across the settlement hierarchy (Total: 440 inkwells and inkwell lids; objects wrongly identified as inkwells in the literature are not counted here).

In the graphs that follow, I have excluded objects that were published as inkwells but are in fact lantern burners or pyxides, including enamelled inkwells of Type Johns; lids, which may or may not be from inkwells, are shown as a separate category. Of 440 objects identified as inkwells, only 47 have an ‘unknown’ provenance. Objects with an unknown provenance are typically from museums, usually antiquarian acquisitions or are from sites for which I was unable to obtain any information.

Military

Given current understandings of literacy in the ancient world, we may expect to see a bias towards major urban and military sites; such a distribution of writing equipment has long been suggested, though it may partially reflect those sites most intensively studied (Bilkei 1980, 72). Significant numbers of inkwells are indeed found on military sites, a category that incorporates both auxiliary forts (e.g. Loughor, Saalburg) and legionary fortresses (e.g. Longthorpe; Vindonissa). An inkwell may come from the military site or its *vicus* (e.g. Straubing); in some cases this detailed information is simply not known (e.g. Intercisa). Whether from within the walls of a fort or from the associated civilian settlement, it can be argued that eighty-eight objects (of which fifty-five are certainly inkwells and thirty-three are lids) are broadly from a military milieu.

This relatively high number is not surprising, given the importance of literacy and numeracy in an army clearly characterised by an enormous amount of paperwork (Bowman 1991; Bowman and Thomas 2003, 30; Hingley 2005,

97–99; Stauner 2004). Existing skills and aptitudes may have been a consideration at recruitment, as indicated by Vegetius writing in the late fourth century but drawing on much earlier sources (*Epitoma Rei Militaris* 2.19): ‘Since there are several administrative departments in the legions which require literate soldiers, it is advisable that those approving recruits should test everyone for tall stature, physical strength and alertness in everyone indeed, but in some knowledge of ‘symbols’ and expertise in calculation and reckoning is selected’. It is clear from, for example, the papyri from third-century Dura Europos that training was provided for specialist clerks to produce the standardised and apparently uniform texts required by the military administration (Austin 2010, esp. section 6.1). Analysis of the Vindolanda tablets has identified hundreds of individual hands and these are not just of clerks but also officers and even lower-ranked soldiers (Bowman 2003, 85). Military education in general may have placed emphasis on clarity rather than necessarily on grammatical precision and on correcting phonemic errors made by speakers of native languages, as is evidenced at Vindolanda and elsewhere (Adams 2003, 617–623; Stauner 2004, 206). Auxiliary soldiers could of course also write in their own languages and scripts (Galsterer 1999, 47). Being literate and numerate as well as competent in administrative tasks facilitated promotion, with junior officers required to manage accounts, orders and lists (Haynes 2002, 121; Phang 2007, 296; Speidel 1996, 57–64; Stauner 2004, 193–195). The importance of these skills is reflected in the fact that wax tablets and occasionally other objects associated with literacy such as writing sets are frequently depicted on military grave monuments (e.g. Speidel 1996, 58–59). There is evidence that officers took care to have their sons educated (Speidel 1995, 200–201) and that some veterans became school teachers (Laes 2011, 127).

Figure 7.4 also shows a number of finds classed as ‘military/urban’; these are from sites that had both a military and civilian phase or where a major settlement existed next to a military site and where exact context details are not known (e.g. Carnuntum, Colchester, Nijmegen).

Urban

Woolf (2000, 876) provides a lively summary of the ubiquitous presence of writing in towns, including the ever present inscriptions and graffiti (e.g. Corbier 2006; Baird and Taylor 2011). Reflecting this importance, the dominant social context in which inkwells have been found is clearly made up of ‘urban’ sites. It is possible to distinguish between major (e.g. *coloniae*, provincial capitals) and minor (e.g. *civitas* capitals, small towns) urban sites, and an attempt was originally made on the database to do so. However, such an approach works much better for a single province such as Britain, where noticeable differences in consumption patterns existed between major sites such as Colchester

and London and smaller towns such as Caerwent or Silchester. When viewing urban sites from across the whole of the Empire, such distinctions become much less meaningful. A town like Pompeii may be classed as a small town, but due to its location and history, and the nature of its destruction, it has many more inkwells than most provincial sites. Italian and southern Gaulish sites may behave completely differently to British ones, and there are obviously huge differences between towns in, for example, the Danube and North African provinces. Some towns have produced very large numbers of inkwells, but that is a reflection of research history and traditions, not ancient use (e.g. compare Augst, which has a recent specialist publication with the city of Rome, for which there is little published small find data).

An unusual site is the settlement on the Magdalensberg, Austria. This hill-top site was occupied from the early first century BC to the Claudian period. Established as a trading settlement, with close links to Aquileia, it developed into a Roman town with extensive public and private buildings. The Magdalensberg is interesting as it represents a highly 'Romanised' settlement created prior to the integration of Noricum into the Empire. It became a significant regional centre of not just trade but also administration and display before being abandoned in the mid-first century AD as settlement was moved to a nearby more accessible site (Gostenčnik 2005, 21–26). A significant quantity of writing equipment has been found on the Magdalensberg; this includes the inkwells recorded here (three certain, nine lids) as well as ceramic inkwells (Öllerer 1998, 138–140, pl. 3) but also more than 500 styli in bone and metal, seal-boxes and spatulae (Deimel 1987, 53–55; Gostenčnik 2005, 37–78; Öllerer 1998). Context analysis demonstrates that writing equipment was used in domestic, industrial and ritual contexts and that there was a significant increase in the number of objects deposited from the Augustan to the Claudian period (Öllerer 1998, 147–150). Taken together, the 219 finds (of which 156 are certainly inkwells and 63 are lids) from urban sites demonstrate clearly that copper-alloy inkwells are closely associated with urban life.

'Small Settlements', Villas, Rural and 'Other' Sites

A striking feature of the analysis is the relative rarity of inkwells on small settlements, rural, villa and 'other' sites. 'Small settlements' is an awkward category, comprising sites such as Baden (Aquae Helveticae, Germany), Taraneš (Macedonia) and Quamran (West Bank, Israel); clearly there is huge spatial, chronological and functional diversity. There are very few finds from villas, which normally have well-published finds assemblages. The recorded examples are mainly from Germany, which probably reflects publication levels rather than a real pattern. Even fewer examples come from what are described as rural sites; some of these may in fact be associated with as yet unrecorded villas

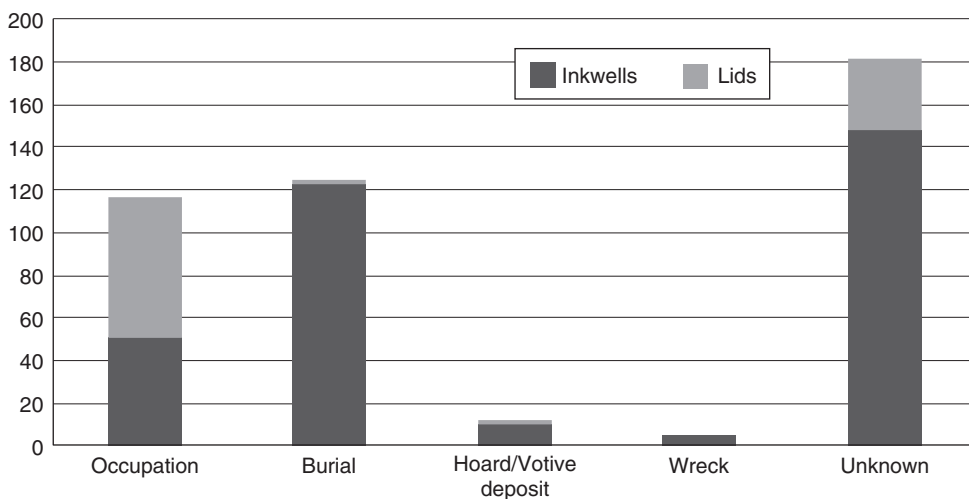
or other settlements and roads (e.g. No. 67 Günzenhausen, No. 490 Monte Carru di Alghero). The cemetery at Vagnari (No. 473) is thought to have been associated with a small rural settlement that formed part of an imperial estate. Most examples from rural and villa sites are from hoards or rich burials (discussed in more detail in a separate section within this chapter).

Literacy levels on rural sites are usually assumed to have been lower than on urban ones, but it is rare for this to be based on artefactual data. The evidence from Roman Britain is contradictory, with styli used to argue for relatively high rural literacy, while research on the relative proportions of graffiti shows a marked military and urban bias (Evans 1987; Hanson and Connolly 2002). More recently, an argument for relatively high-rural literacy has been made on the basis of graffiti from the German provinces and Raetia (Scholz 2015). This includes an interesting example in which the graffiti on pottery are concentrated in certain parts of the large villa at Echternach (Germany); these are thought to be a kitchen and servants quarters, suggesting that the need to mark containers and property was more pronounced in areas shared by multiple individuals.

The ‘Other’ category comprises finds from shipwrecks or rivers, which are discussed in detail later in this chapter. The context of an inkwell of Type Noll (No. 75) from Gomilice (Serbia) is classed as ‘other’ as the burial is described as being associated with imperial mines in the area, but the site could perhaps be classed as a small settlement (Cvjeticanin 2004). A number of finds from Free Germany that are from outside the boundaries of the Empire (Nos. 240, 291, 294, 418, 424) are also grouped in this category.

Conclusion: Social Distribution Site Level Analysis

Social distribution analysis is not well suited to Empire-wide studies, where biases in data collection and cultural differences between the various parts of the Empire are likely to create a potentially misleading picture. Nevertheless, a basic assessment of the broadly defined cultural milieus in which metal inkwells have been found confirms the expected dominance of urban and military sites, and a striking absence on more rural sites. For a more nuanced picture from a specific province, we can compare the distribution of Samian inkwells to that of copper-alloy examples within Roman Britain (Willis 2005). This shows a very similar overall pattern, with a strong emphasis of both materials on military and urban contexts. More Samian inkwells have been recorded from rural sites, almost certainly as a result of the detailed recording of pottery within this particular province. We may question whether the restricted social distribution of metal inkwells is due to limited use of this particular artefact type or simply a reflection of the distribution of metal vessels more generally. For Britain, recently collated evidence suggests that it is indeed the use of inkwells that



7.5. The social distribution of inkwells at context level (Total: 440).

appears to be a culturally and socially restricted practice, with bronze vessels generally achieving a much wider distribution (Lundock 2015). In a next step, we can examine context on a more detailed level by distinguishing between finds from settlements, burials, hoards and shipwrecks.

SOCIAL DISTRIBUTION: WHO USED INKWELLS? CONTEXT LEVEL ANALYSIS

Systematically assessing the specific contexts of inkwells within a given site shows that, for just under 200 examples, we simply have no detailed information. However, for the remainder we can distinguish between occupation deposits, hoards or votive deposits, shipwrecks and burials (Figure 7.5).

Occupation Deposits

All finds for which some context information could be ascertained and which do not appear to come from burials, hoards/votive deposits or shipwrecks have been listed as ‘Occupation deposits’ on the database. The term clearly glosses over significant differences and includes finds from floors, surfaces, pits and ditches; no clear pattern could be discerned between these different types of deposit and they are treated as a group here. However, in some cases, specific information regarding the type of building or room is given; this is usually for military sites, where the standardised layout offers more certainty about an area’s function. Three inkwells were found within *principia* buildings, which would seem likely places for writing to have taken place (Colour Plate 8.2). At Porolissum (Zalău, Romania) an inkwell lid of Type Noll (No. 63) was

found in Building C4, to the left of the *principia* of the second-century fort; at Nijmegen an inkwell (No. 225) was found within the *principia*, predating the departure of Legio X Gemina in 104 AD. Finally, there is an inkwell lid (No. 378) from disturbed layers in the *principia* at Bucium (Orăştiora de Sus, Romania). Another place where one might expect to find writing equipment is the *praetorium*, and an inkwell lid (No. 384) from Loughor was found in the fill of a robber trench, while a pit within the *praetorium* at Rississen contained a stamped inkwell base (Kemkes 2016, 268). At Haltern, a complete inkwell (No. 81) still containing some ink was found south of the *praetorium* in a pit together with a copper-alloy *patera* handle.

That writing may also have taken place within the accommodation of ordinary soldiers is demonstrated by finds from barrack structures in Caerleon (No. 379) and Longthorpe (No. 382) and more generally from the Nijmegen *praetentura* (No. 386). A possible inkwell (No. 224) was found in a building interpreted as a granary at the fort of Loughor, and it is of course likely that records of grain and other food stuffs were kept within the building. Finally, there is an inkwell lid (No. 389) from a large pit interpreted as a cistern in Usk; this feature is in Room 4 of a building interpreted as a *fabrica* (Manning 1989, 26). For the legionary fortress at Vindonissa (Switzerland), the distribution of inkwells and other copper-alloy vessels was recorded across the site. Inkwells occur most commonly within barracks, in specialist structures and amongst the re-deposited rubbish outside the fortress; inkwells are absent from the tribune's and legate's accommodations, but this is part of a wider trend in the distribution of copper-alloy vessels on this site and attributed to the intensity of excavation and usage of these various areas (Holliger 1987, 42–43). At Vindolanda an inkwell lid (No. 428) comes from an Antonine ditch fill and another (No. 429) was found on the south gate roadway of the period II–III forts (ca. AD 95–105); it was found about six metres away from the writing tablet bonfire site behind the *praetorium* on the intervallum road (information kindly supplied by Barbara and Andy Birley). Recent analysis for a number of German military sites has shown concentrations of writing equipment near administrative buildings and officers' residences (Allison 2013, 92, 286–288).

In terms of non-military sites, the distribution of all the writing equipment in Augst (Switzerland) was mapped, but while this does show some apparent concentrations within the town, these are probably a reflection of the relative intensity of excavation and site-specific patterns of re-deposition (Fünfschilling 2012, 201–205, figs. 53–57). An inkwell lid of Type Noll from Volubilis (No. 60) is said to have been found in the 'forum piscina', presumably the forum baths (Albertini 1931, 181–182). From the Magdalensberg we have information on the contexts of writing equipment other than inkwells, which shows that styli and other objects were used in *tabernae*, industrial and domestic contexts

and the temple (Öllerer 1998, 147–149). A burnt third-century deposit from a house in the small settlement of Nassenfels (Germany) comprised 315 objects, including 13 iron and 1 copper-alloy stylus, 12 seal-boxes, a spoon-probe and stone palette, 3 lamps, 11 spoons, 20 iron needles, 3 brooches as well as 213 bone counters. The excavators believe that objects associated with writing, accounting and textile working once stored in a wooden box on an upper floor fell to the floor when the building was destroyed (Fünfschilling 2012, 175; Hüssen 1993).

Other detailed context evidence for non-military sites is essentially limited to Vesuvian sites. Thus two inkwells (Nos. 243–244) were recovered in peristyle A of the Villa della Pisanella at Boscoreale. They appear to have been stored inside a cabinet equipped with three wooden shelves, which was placed against the wall between the entrances to two rooms. The inkwells were found together with other small finds and tools, which are unfortunately not listed (Stefani 2002, 106).

In Pompeii, for recorded inkwells where any detail is given, four only state the house (Table 7.2; Nos. 122, 276, 278, 279). Inkwell No. 122 comes from the house of Gratus, thought to have been that of an architect (d'Ambrosio et al. 2003, 279–282). For a further three (Nos. 277, 204–205) the atrium of a house is specified as the findspot. Of particular interest are the two inkwells (Nos. 204–205) from the Casa del Fabbro, a relatively small house excavated between 1932 and 1933, which appears to have been occupied at the time of the eruption and in which approximately 250 copper-alloy objects (including tools and scales), worked bone objects and iron tools were found (www.stoa.org/projects/ph/house?id=10; Elia 1934, 278–308; Gralfs 1988, 50–55). Many of these appear to have been found in the atrium and *tablinum*. Gralfs (1988, 53) notes forty-four copper-alloy vessels ('mainly inkwells') and argues that this is the home and workshop of a metalworker. Another inkwell (No. 275) was found within a shop in Reg. II I, I and an inkwell of Type Noll (No. 44) in the so-called gladiators' barracks (Descamps-Lequime 2006, 25, and 2005, 19). The Naples Museum holds thirty-seven inkwells said to be from Pompeii, one from Naples and fifteen of unknown provenance (pers. comm. Riccardo Berriola); of the accession numbers listed, only three correspond to examples recorded by me from published sources (Nos. 109, 279, 122). It was not possible to view this material nor to match the museum list to published examples with certainty, but we can note that fourteen inkwells have specific provenances (see Table 7.2). A systematic survey of house contents could in the future establish a more detailed picture of the distribution of writing equipment in Pompeii (cf. Allison 2004). For example, the excavation day journals record two inkwells (material not specified, but both still containing a sponge) from House VII, ii, 6, the house of Terentius Neo, who is proudly depicted with his wife and writing equipment (García y García 2005, 135).

TABLE 7.2. *Inkwells from Pompeii*

House	Context detail	Catalogue No.	Inv. No.
Casa del Fabbro (R. I, 10, 7)	Atrium (possible metalworker)	Nos. 204–205	Inv. No. 5305
Reg. II 1, 6	Atrium	No. 277	DPomp 10791
Reg. II 1, I	Shop	No. 275	DPomp 10514A
Caserma degli Gladiatori (VIII, 7, 16)	Gladiators' barracks	No. 44	Inv. No. 75068
Casa di Oppius Gratus (IX, 6, 5)	–	No. 122	NMN 115614
Reg. I 14, 5	–	No. 276	DPomp 11787
Reg. V 3, 12	–	No. 278	DPomp 22,2
Casa segnata al n. 32 su via Stabiana (VII, 2)	–	No. 279	NMN Inv. No. 75086
Casa segnata al n. 32 su via Stabiana (VII, 2)	–	Pers. comm. Riccardo Berriola	NMN Inv. No. 117608
Casa di Terentius Neo (VII, 2, 6)	–		García y García 2005, 135, refers to two examples mentioned in the day journals, which could be the two previously mentioned
Casa di M. Epidius Sabinus (IX, 1, 22)	–	Pers. comm. Riccardo Berriola	NMN Inv. No. 75084
Casa che ha ingresso sullo stesso lato settentrionale	–	Pers. comm. Riccardo Berriola	NMN Inv. No. 110082
Casa L. Caecilius Lucundus (V, 1, 26)	–	Pers. comm. Riccardo Berriola	NMN Inv. No. 110670
Casa L. Caecilius Lucundus (V, 1, 26)	–	Pers. comm. Riccardo Berriola	NMN Inv. No. 110671
IX, 2 'Località vicino alla casa di Bellerofonte'	–	Pers. comm. Riccardo Berriola	NMN Inv. No. 110774
IX, 2 'Località vicino alla casa di Bellerofonte'	–	Pers. comm. Riccardo Berriola	NMN Inv. No. 110775
Casa di C. Vibius Italus (VII, 2, 18)	–	Pers. comm. Riccardo Berriola	NMN Inv. No. 117580
Casa di Orfeo (VI, 14, 20)	–	Pers. comm. Riccardo Berriola	NMN Inv. No. 118809
Casa di Demetrius (I, 2, 18)	–	Pers. comm. Riccardo Berriola	NMN Inv. No. 119734
Casa V, 5, 2	–	Pers. comm. Riccardo Berriola	NMN Inv. No. 119885
Casa V, 2, G	–	Pers. comm. Riccardo Berriola	NMN Inv. No. 121445

Hoard and Votive Deposits

Writing was an important element in Roman cults, be that in the form of lead curse tablets, inscribed stone altars or wooden plaques, graffiti or deposits of seal-boxes; priests also clearly kept records of donations and offerings, and written texts could be used to guide and inform rituals (Czysz and Faber 2008, 264–265; Czysz and Scholz 2013, 365–366). Given the significance of literacy in this context, it is striking that there are so few inkwells recorded from sanctuary sites. There is an unusual pewter inkwell from Bath (No. 475), and one of three lead inkwells from Delos in Greece of an uncertain (probably Hellenistic) date is said to come from near the temple of Aphrodite (Deonna 1938, 255–256, pl. 81). However, there are a number of finds that may well be ritual in character. I will describe these ‘hoards’ before considering them in view of recent debates about the nature of such deposits to explore whether it is possible to distinguish between a smith’s collection, a concealed hoard or a votive offering.

A copper-alloy inkwell (No. 142) was part of a spectacular hoard consisting of copper-alloy vessels and cult figurines, silver votive leaves, copper-alloy standards and a number of other copper-alloy and iron objects, including bells, scales, lamps, a tripod, flesh-hooks, multiple knives and other tools (axes, saws and a sickle) found in Mauer an der Url (Austria; Noll 1980). In the absence of coins, the hoard is dated stylistically to the third century AD. It was found just 40 m south of the wall of the auxiliary fort and is thought to have been hidden during the Alemannic attacks of AD 233 (Noll 1980, 114–116). The figurines and votives relate to the cult of Jupiter Dolichenus, and it seems likely that all the objects were used in a shrine to that god, who was strongly associated with the Roman army. The objects appear to have been grouped in the pit, possibly contained in wooden boxes (Noll 1980, 18–19).

The hoard from Detzem, near Trier, appears to have been placed in a large wooden box, which contained a copper-alloy cauldron that in turn held a wide array of objects. There were four figurines, namely a genius, a dancing Lar, Mercury and an unidentified goddess; also found were a bust vessel, scales, decorative furniture feet, a handle, two lion mounts, three dolphin handles and discs from a box or boxes, a lamp, four bells, rings and fittings from a horse harness, the inkwell (No. 253) and fourteen copper-alloy fragments, some probably parts of vessels. The hoard also included iron tools (a pair of dividers, three crowbars, a file, scales), a square piece of copper, a bronze ingot and a copper-alloy sheet fragment. Menzel (1966, 122) dates some of the vessels and figurines to the third century. The function of the hoard is not discussed in its publication, but given that there were a number of fragmentary objects and some tools, it could be a metalworker’s hoard. The figurines could be from a

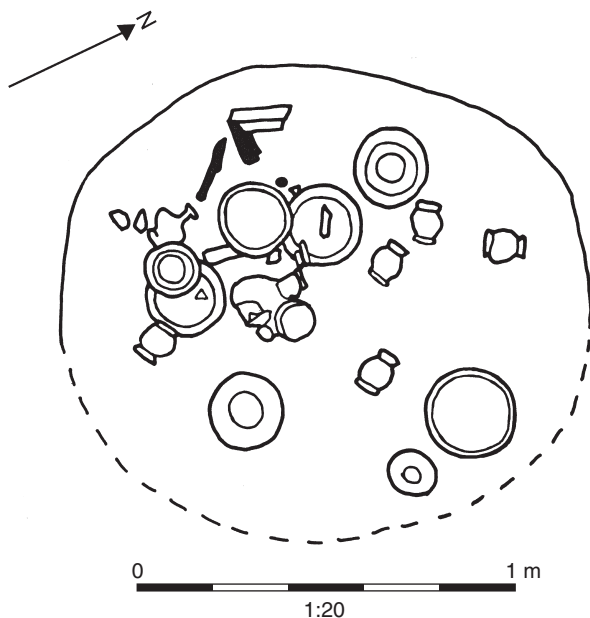
domestic shrine. Spatially, the hoard is thought to be associated with a villa located about 650 m away (Menzel 1966, 17–18).

The hoard from Immendorf was in a copper-alloy cauldron (lying with its base up) and contained an iron handle, together with the handle of a copper-alloy casserole, six copper-alloy bridle elements and an iron horse collar, iron tools (a pair of dividers, an axe, two plane irons and a sickle) and some iron fragments as well as a copper-alloy inkwell (No. 262). The hoard is dated to the third century on the basis of the cauldron and other hoards in this region that are thought to have been hidden in response to Germanic incursions. It is interpreted as a scrap-metal hoard, as the wooden elements of the tools are said to have been removed and there is no complete horse harness present (Nuber 1976).

An hexagonal inkwell lid decorated with vines in niello (Figure 4.4; No. 451) is part of a small hoard found in Insula 20 in Xanten. This contained 390 coins and 15 artefacts, of which 10 survive; these include two silver spoons, a silver bowl and a silver ring. The vessel has a fish in niello on its interior base, and two of the spoons also have niello decoration (Gelsdorf 1997; 1995, 259–260; Martin Kilcher 1985, 147–149). The vessel has a graffito (VIKIINI) and one of the spoons has an inscription in niello (GALIKNI). The hoard's deposition is dated to AD 260 or shortly afterwards, but some of the objects may have been quite old; several are worn, and a spoon decorated with Dolichenus symbols probably predates AD 235, when the cult declines in the region. The material is thought to have been deposited due to its metal value, possibly in response to Frankish incursions.

An inkwell (No. 272) found near the walls of Aquincum contained six coins including one of Gordianus III, dating it to the middle of the third century (Bilkei 1980, 80, pl. III, No. 98). This may represent the re-use of an inkwell as a convenient container for a small hoard or offering. Finally, a lid from Camerton (No. 380) is amongst metal-detected mid-first century AD finds that may have been part of a smith's hoard associated with the military site (Jackson 1990, 18–25).

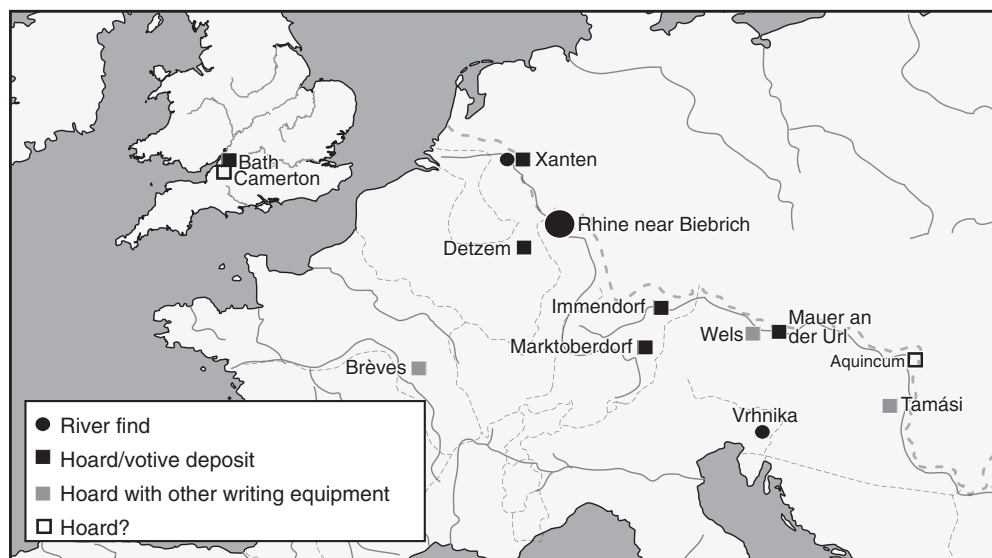
In contrast to the hoards discussed so far, one further deposit from Marktoberdorf was identified by the excavators as a votive deposit or the remains of a ritual feast. In a pit about 75 m north-west of the main building of a *villa rustica*, multiple Samian, ceramic and glass vessels were found together with writing equipment (Czysz and Faber 2008, 244–268; Czysz and Scholz 2003, 2013). The assemblage contained small plates, beakers and a jug as well as mortaria and the remains of pig and sheep/goat, as well as a single dog rib. Three of the beakers have incised graffiti: one is a dedication to Hercules Victor and one possibly to a local spirit, and all three are the work of literate natives judging from their names and handwriting styles. Also found was a writing set consisting of an inkwell (No. 419), a wax spatula and a small knife



7.6. Votive deposit from Marktoberdorf containing writing equipment (after Czysz and Scholz 2013, fig. 4).

(Figure 7.6 and Colour Plate 7.1) as well as several iron nails, an iron lock fragment, a small copper-alloy disc, an iron tool (possibly a plane), an iron ring and two bone weaving tablets. A sherd link to a rubbish deposit next to the main house suggests that part of the ritual took place there and that the relatively shallow pit was specifically dug to receive this material. The excavators distinguish between complete objects (with the ceramic vessels thought to represent sets for three people) and those placed into the pit in a fragmentary or damaged state, perhaps as *pars pro toto* offerings. They interpret the deposit as the remains of a ritual feast and a votive offering by people living on the villa estate in the mid-third century AD. The presence of the writing equipment may indicate that the votive rites were guided by texts. Throughout the Roman world the pledging of a vow (*nuncupatio*) was recorded in writing, much like a contract, while its fulfilment (*solutio*) may be marked by a votive offering or the erection of an altar (Derks 1998, 215–239).

In this context it is interesting to note another votive deposit with inkwells, from Avenches (Switzerland). Two inkwells (Nos. 392–393) were found with a possible wax spatula handle, fragments of copper-alloy vessels, an iron signet ring, two ceramic lamps and abundant pottery (including twelve Samian vessels) and animal bones (pork). The objects were in two layers, and some possibly in a wooden box in what is interpreted as a votive pit dated to ca. AD 120–130 (Castella et al. 1999, 258–260, fig. 246; Schaltenbrand Obrecht 2012, 45). This may have been associated with the nearby cremation of an adult and



7.7. Inkwells from hoards and rivers and hoards with other writing equipment.

child; the 'En Chaplix' cemetery contains other such possible offering pits (Castella et al. 1999).

There has been considerable debate about the reasons for Roman-period hoarding, or perhaps rather the non-retrieval of hoards, and while most of the individual publications reviewed here have argued that these groups of material were hidden for safekeeping or represent scrap materials hidden by metalworkers, we cannot be sure of the depositors' motives (Kaufmann-Heinimann 1998, 188–191; cf. Johns 1994; Millett 1994; Reece 1988). Usually not enough contextual information survives to establish whether the deposits were intended to be retrieved, or whether they might represent votive offerings. The spectacular hoard from Mauer an der Url is clearly derived from a nearby temple, and both it and the hoard from Detzem contain religious figurines while the deposit in Marktoberdorf has votive inscriptions. A striking feature of these deposits is that there is a clear concentration in the third (Mauer, Detzem and Immendorf), and possibly the mid-third century (Aquincum, Marktoberdorf and Xanten). In terms of their spatial distribution, the majority is located in southern Germany, Austria and Hungary (Figure 7.7). Such hoards have traditionally been related to Alemannic incursions, but more recent discussions offer more nuanced and complex explanations for the deposition of coins and other material during this period (Haupt 2001).

There has been little comment in the academic literature on why writing equipment might have been included in such deposits, which of course can also contain styli or Samian rather than metal inkwells. Thus Kaufmann-Heinman

(1998, 241) lists hoards with writing equipment from Brèves (France, two styli), Wels (Austria, one Samian inkwell) and Tamási (Hungary, one stylus; cf. Fünfschilling 2012, 175). The argument that these assemblages represent either scrap or objects grabbed in the panic of an imminent attack fails to account for low-value Samian inkwells and styli, which may in fact have served a function in domestic cults.

None of the finds discussed so far appear to be from what may be described as ‘watery’ contexts, which have often been taken to represent votive offerings. However, the pewter inkwell found within the sacred spring of the Temple of Minerva at Bath (Figure 4.3c; No. 475) is clearly votive in character (Cunliffe 1988). Given the importance of writing at the site, with numerous curse tablets, vessels and coins also deposited within the spring, it is possible that it was used for rituals prior to deposition. Its material is interesting, as pewter and lead inkwells are exceedingly rare, but we may note that another spring that saw significant ritual activity, the fountain of Anna Perenna at Rome, contained three lead cylinders, some inscribed and containing wax figures (Chapter 5; Piranomonte 2016, 79).

It remains to mention inkwells that may be described as votive offerings as they were found in rivers. A well-preserved inkwell dated stylistically to the first century AD comes from the Ljubljanica River, near Vrhnika in Slovenia (No. 192). This inkwell is amongst a range of finds recovered from the river, which was a major transport route, especially until the Augustan period (Istenič 2009, 79–85; cf. Kappesser 2012, 100–101). Two double inkwells are said to have been found in the Rhine near Biebrich (Nos. 182–183). The Rhine crossing in this area, connecting Mainz to Wiesbaden, Nida and beyond, clearly saw significant traffic, and Biebrich eventually became the site of a villa and a possible *burgus* (Baatz and Herrmann 1982, 495; Kappesser 2012, 75–76). The exceptional assemblage of metal vessels, tools and other objects from the Rhine near Xanten also included an inkwell of unusual form (Figure 5.17b; No. 219; Schalles and Schreiter 1993). For each of these sites there has been considerable debate as to whether such river finds represent accidental losses during river crossings, raids and battles or whether they could be votive offerings. For prehistory, the argument for votive deposition in watery contexts has been widely accepted (Bradley 1990, 2016; Yates and Bradley 2010), but it is only recently that the same argument has been made for Roman river finds, where functional interpretations have traditionally been preferred (e.g. Kappesser 2012; Walton 2008). Not enough is known of the exact context of these inkwells from rivers, and in contrast to weapons and vessels, inkwells are certainly rare finds in rivers; however, on balance a ritual explanation seems most likely. In contrast to the hoards, these river finds occur over a very wide area, and some are earlier in date.

Shipwrecks

A number of inkwells are known from wrecks. Thus three inkwells (Nos. 78–80) were found on a ship at Comacchio on the north-east coast of Italy, which sank at the end of the first century BC. Its primary cargo consisted of 102 lead ingots of Spanish origin, amphorae and boxwood logs. The ship also carried North Italic sigillata pottery and objects belonging to crew and passengers. These include lead foil votive temples, leather shoes, tools and an anchor as well as a balance and the inkwells (Invernizzi 1990; www2.rgzm.de/navis/ships/ship050/thecomacchiowreck.htm). At Dramont D on the south coast of Gaul another ship sank at the end of the first half of the first century AD. The ship carried Dressel 2–4 and Rhodian amphorae containing dates and figs; also found were Arretine vessels, mortaria, ceramic lamps, four copper-alloy casse-roles, pumps, iron anchors and various tools, as well as a double inkwell of Type Biebrich (No. 185; Joncheray 1975, 6–8, photo 3). At Lavezzi, a small group of Islands between Corsica and Sardinia, an inkwell that appears to be of Type Biebrich (No. 188) was found on a wreck that carried amphorae (Dressel 7, 8 and 9) as well as pottery vessels including Samian ware from La Graufesenque; the ship (Lavezzi II) sank in the second half of the first century AD (Bebko 1971, 4–5, pls. XXIII–XXVIII). Ceramic inkwells are attested on other Roman wrecks (cf. Parker 1992, 134, 333), and a much earlier shipwreck at Porticello, dated to between 415 and 385 BC, also contained ceramic inkwells (Eiseman and Ridgway 1987, 60–62). On all these ships the inkwells attest to the commercial activities carried out on board (cf. Woolf 2000, 884). Literacy would also have been important when negotiating harbour administration and to stay in touch with family and friends.

Funerary Contexts

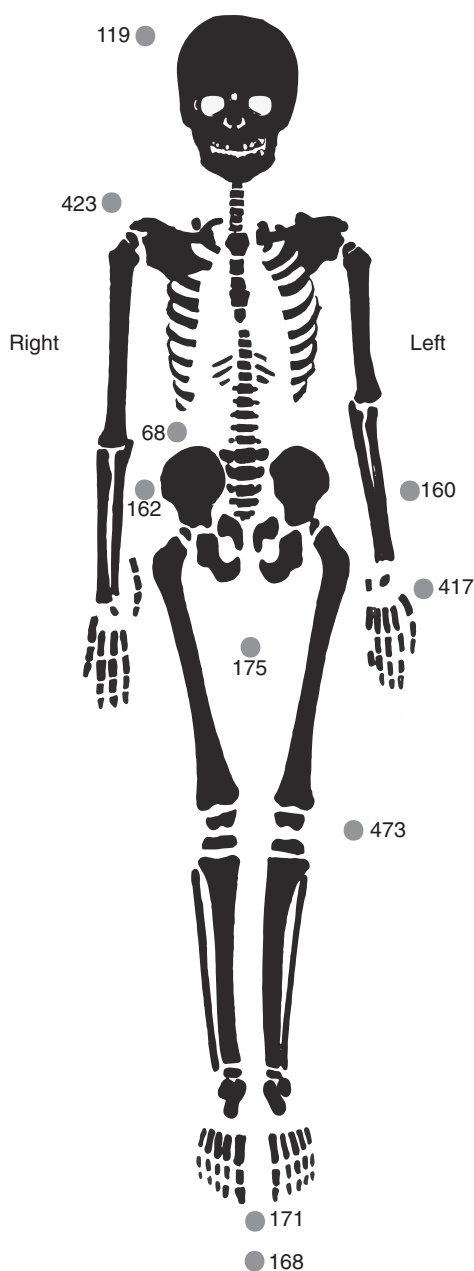
Out of a total of 440 inkwells recorded, 131 are from individual burials or are stray finds from cemeteries. The frequency with which inkwells are recorded in burials reflects the importance of the display of literacy in funerary rites as well as the fact that small fragile objects like inkwells have a higher chance of survival, recognition and publication in graves than when encountered in a fragmented state on settlement sites. It should be stressed again that this figure represents an arbitrary sample in that only graves with inkwells are discussed here; there are many other graves containing writing equipment in the areas surveyed here, but recording all of them was beyond the scope of this project (cf. Fünfschilling 2012, 169–175, table 2). Inkwells come from both cremation and inhumation graves, with the cremations generally but not universally earlier than the inhumations. The high status of the individuals buried with inkwells is reflected in the frequent occurrence of grave structures such as sarcophagi (e.g.

Nos. 70, 127, 150), tiled graves or stone cists (e.g. Nos. 68, 100, 162, 298, 295). A number of inkwells even come from tumuli or chariot graves (e.g. Nos. 41, 107, 153, 260). We have already discussed the unusual deposit from a cemetery in Avenches interpreted as a votive offering (Nos. 392–393).

I will end this section by briefly considering the detailed context of inkwells in graves. Iconographic evidence suggests that writing sets were often carried under the left arm; were inkwells in graves also placed in certain positions? Unfortunately such information is rarely available, but a number of examples can be presented (Figure 7.8).

In Duklja (Montenegro) an unsexed inhumation in a tile grave has an inkwell (No. 417) and possible wax spatula or knife by the left hand, and thus in the position it would have been held in life; a glass vessel is by the right hand. In a male grave at Vagnari (Italy) the inkwell was by the left leg, with other writing and with leatherworking equipment (No. 473). In what is probably a male grave at Rusovce-Orcszvár (Slovakia), the crossbow brooch was worn on the shoulder while the inkwell (No. 160) was near the left arm in the pelvis region; a glass and a ceramic vessel were by the right side and feet respectively. In a similar grave from the same site, a crossbow brooch, buckle and ring were worn, while a glass cup and inkwell lid (No. 171) were placed by the feet. At Zalaszentgrót an inkwell (No. 68) was on the right side of the spine while an iron sword was on the left; a crossbow brooch was found near the head, possibly indicating it had been worn on the shoulder (Müller 1976, 59–60).

In a very rich, stone-lined cist burial at Taraneš (Macedonia) an inkwell (No. 162) still chained to a copper-alloy cylindrical tube for pens, styli or even parchments was placed near the right hip of the skeleton. The other, very high-status grave goods include a gold, inscribed crossbow brooch; two silver



7.8. The position of inkwells in inhumation graves.

vessels, a silver spur, buckle and ring and a diatretum and other glass vessels; a game set; an iron axe and an iron knife. A filled inkwell (No. 423) was placed near the right shoulder of an inhumation at Krefeld Gellep of which only the skull survived; two coins were in the mouth. In another grave from the same site a possible inkwell (No. 168) was ‘probably’ placed near the feet (Pirling and Siepen 2006, 428). An unusual inkwell (No. 119) from a fourth-century, presumably female, grave at Bregenz (Austria) was found to the right of the head, while a copper-alloy bracelet was worn on the left arm (Konrad 1997, 93). In a presumably male grave from Karmacs, one of the crossbow brooches, the belt and the fingering were worn, while other objects (two glass vessels, a ceramic lamp, several coins, another brooch, three flints, an iron strike a light, an iron awl and an iron knife) were placed by the side and by the feet. A glass vessel was in the crook of the right arm and the possible inkwell (No. 175) was between the legs, just below a bag of coins.

Even more rarely than for inhumations, the exact location of writing equipment is noted for cremation graves. Thus at Berlingen (Belgium) an inkwell (No. 107) comes from a rich, early Flavian tumulus, where it was placed in a wooden chamber or box with ceramic and glass vessels, lamps, a pair of dice, an axe, a spearhead, iron shears and other writing equipment (Figure 2.5). The cremated remains are of a young male. The plan shows that the inkwell was in the north-west corner with the other writing equipment nearby, possibly originally in an organic container. At Duklja (Montenegro) the inkwell (No. 137) was placed in the upper part of a stone urn with a glass vessel and wax spatula with other writing equipment and a coin placed beneath it. In cremation 4079 at Krefeld Gellep the inkwell (No. 422) appears to have been placed away from the other grave goods (a copper-alloy spoon and seven ceramic vessels) at the northern edge of the grave, possibly with other writing materials made from organic materials. In the cremation of a female ‘doctor’ from Vindonissa (Switzerland), the unburnt inkwell (No. 213) was just south of the urn. In an antiquarian discovery at Nijmegen, which may have been a cremation or inhumation, an inkwell of Type Boeselager (No. 104) was found away from the medical instruments, perhaps suggesting that this type is indeed an inkwell, not a container for medicines.

From the extremely well-excavated cemetery at Nijmegen, five cremations with inkwells are known, each placed into a wooden chamber or box with a rich array of other grave goods (Koster 2013). This provides an opportunity to explore any patterning in the location of writing equipment within a group of clearly related graves dated to the later first to second century AD, and belonging to the local provincial elite. There is no clear trend in terms of overall location, but four are from the northern part of the burial chamber (No. 322 Grave 1 in the north-west, No. 35 Grave 9 and No. 97 Grave 11 in the north-east and No. 94 Grave 21 in the north), while only one (No. 37 Grave 8) is from the

south-eastern corner. All five graves contained other writing equipment such as wax spatulae, styli and knives (Chapter 11); in three cases (Grave 1, 9, 11) all the writing equipment was close together, but in two (Graves 8, 21) it was not. In Grave 9 the inkwell (No. 35) and writing equipment were found away from the other objects on a wooden platform in the north-eastern corner of the burial chamber, but in other cases the writing equipment was placed close to other objects. These include lamps (Graves 8 and 21), which could have had a functional association with writing, but also copper-alloy and glass vessels (Graves 8 and 11), a bathing dish and strigil (Grave 21) and an amber spindle (Grave 1).

It is not possible to identify clear locational patterns in what is very widely dispersed evidence, but it can be said that writing equipment is normally placed as a group into graves, clearly often associated with now perished organic remains. Amongst the nine inhumations with surviving plans in three cases was the inkwell on the left side, whereas it was on the right side of the body in four cases, although that includes one by the right shoulder and one by the head. Two were placed near the feet and one was placed between the legs. The graves, while mostly from the later Roman period and often from the north-eastern (Danube) provinces, have a wide geographical spread, and it is therefore not surprising that there does not appear to be a consistent pattern in the placement of writing equipment, with no apparent emphasis on replicating use in life in the grave.

CONCLUSION

All distribution maps to a large extent reflect publication levels, and the relative rarity of metal inkwells in areas such as Spain and Italy is almost certainly a reflection of this rather than of ancient use. Nevertheless, spatial analysis has highlighted both types with regional distributions and those that were traded much more widely. Inkwells were deposited only very rarely outside the borders of the Empire, although there is some evidence for literacy amongst Germanic tribes, and many graves with writing equipment come from frontier provinces.

This chapter has also explored the context of inkwell use, both in terms of overall cultural milieu and a more detailed context assessment. While I continue to advocate the systematic assessment of the sites on which a particular artefact type has been found (cf. Eckardt 2005), such an overall site assessment has perhaps less value in an Empire-wide study than in intra-provincial studies. Clearly, any literature survey of large areas is inherently biased by not just varying publication levels but also the author's personal networks. Nevertheless, at a most basic level, the general context assessment demonstrated that most inkwells came from major military and urban sites. Metal inkwells are relatively

rare on smaller and rural sites, a pattern also seen for Samian inkwells in Roman Britain, which show an even more marked distribution bias towards military sites. It was not possible to conduct a full survey of ceramic inkwells across the Empire, but if the Romano-British pattern is echoed elsewhere, it would demonstrate that these consumption and deposition practices are indeed about literacy, and not about the general use and disposal of small metal vessels. The picture that emerges in terms of literate identities being expressed most commonly in urban and military contexts is perhaps not surprising, but it is important to demonstrate such patterns from detailed artefact studies rather than anecdotal evidence.

Analysis of the more detailed context information has reviewed the small number of inkwells from shipwrecks and discussed inkwells from occupation deposits, which provided some insights into writing practices within houses and military sites. The ritual use of inkwells was analysed by examining hoards and river finds; many of the former have traditionally been seen in terms of a mid-third-century crisis in Germany and Gaul but more nuanced interpretations of these deposits are now emerging (Haupt 2001; Kappesser 2012). I have also introduced the funerary evidence, focusing in particular on the evidence for the placement of inkwells within a grave.

PART III

WRITING EQUIPMENT IN FUNERARY CONTEXTS AND THE EXPRESSION OF IDENTITIES

This is not the place to review the extensive academic literature on mortuary archaeology, although it is of course important not to simply see grave goods as a direct expression of the deceased's identity or of religious beliefs. Much recent work has shown that grave goods may be gifts from mourners and express relationships between the deceased and other members of the community; they may also represent an idealised version of reality, an aspiration or unfulfilled ambition (for a convenient recent summary, see Brück 2004; Carr 1995). John Pearce (2013, 2015) has argued convincingly that the funerary sphere can be viewed as the context in which identities are enacted and represented through material culture. Material culture in graves was designed to have an effect, be that on participants and onlookers at the funeral, the relevant deities or the dead person in an afterlife (Gosden and Garrow 2012, 196). Artefacts in graves can be viewed as a way of stabilising and displaying the deceased's identities in the minds of onlookers by alluding to and evoking the social practices through which identities were created in a given society (Pearce 2013, 9). In the case of provincial Roman societies, Pearce argues that there is an emphasis on artefacts associated with dining and bathing but also education and appropriate leisure. The display of these objects may signal the adoption of new lifestyles and practices, in ways that Pearce sees as similar to the changes in bodily carriage, gestures, dress or dining that occurred in western Europe since the Middle Ages (Elias 1994, 48; Pearce 2013, 139). In a provincial Roman context such

changes cannot simply be viewed as evoking a “Roman” lifestyle, as they are not necessarily the same as those practiced in Italy. Rather than viewing these new practices through the lens of ‘Romanisation’, it may be more helpful to consider burial rites as performance, with the identities of the deceased and the mourners asserted, reproduced but also challenged through practice and objects. When exploring writing equipment in terms of “etiquettes of consumption” or “expressions of savoir-faire” (Pearce 2013, 137; 2015, 21), we may be tempted to draw links with ideas of *humanitas* and *paideia*, often broadly translated as ‘civilization’ and ‘culture’, but of course encompassing a wide range of concepts (cf. Brown 1992, 35–70; Woolf 1998, 54–60). Writing equipment could also be viewed as a symbol of wealth and business acumen. The remaining chapters focus on the link between the funerary evidence and the expression of literate identities. Chapter 8 will consider the contribution of funerary monuments while Chapters 9–10 will use the grave good evidence for more detailed analysis of gender and age, relating the practice of reading and writing to the life course (e.g. Gilchrist 2012; Harlow and Laurence 2002, 2007). Chapter 11 explores the question of identities and status by analysing how literacy may relate to professional identities and practices.

EIGHT

LITERACY AS PERFORMANCE: SELF-PRESENTATION OF THE EDUCATED ELITE?

Depictions of writing equipment, scrolls and the very act of writing occur on a number of media, notably on tombstones but also on wall paintings. Some of these images are frequently illustrated to identify and discuss specific items of equipment, to illustrate the act of writing generally or to explore specific questions such as female literacy (e.g. Fünfschilling 2012, figs. 12–13; Gaitzsch 1984, figs. 2–7; Hemelrijk 2004; Schaltenbrand Obrecht 2012, figs. 4–40; von Boeselager 1989, 227–236, figs. 14–27).

Chapter 3 touched on the visual evidence in order to describe ancient writing practice. By contrast, this section is concerned with *why* images of writing and writing equipment were produced – what do they mean in terms of ancient identities? Do these images reflect social realities or the social pretensions of ‘sub-elites’ (McDonnell 1996, 469)? The funerary sphere is especially interesting when considering these questions, as this is where ‘inner identity is turned to the public, to become all surface, to give way to the commemoration of enacted and represented identities as expressed in visual and material culture’ (Hales 2010, 227). Careful consideration of the iconography of tombstones can provide important insights into the self-fashioning of identities by provincial elites, which we can interpret in terms of gender, status and regionality. Hales (2010, 238–240) stresses the performative aspects of, for example, funeral rituals, and this approach echoes other recent attempts to view the act and practice of writing as events, performances or dialogues (Baird and Taylor 2011).

The following section makes no attempt to analyse all ancient depictions of writing equipment but presents a selection to develop a series of themes and to examine the context of these images in more detail than is sometimes done by considering their location and associated epigraphic information. Beyond the scope of this study are the numerous monuments depicting individuals holding scrolls, normally in the left hand. The meaning of these images has long been debated, and while it is possible that they represent specific documents such as wills, marriage contracts, citizenship documents or professional qualifications, it is generally thought now that they more generally act as symbols not just of learning and education but also of the authority and dignity of the person depicted (Birt 1907, 65–66; Freigang 1997, 313–314; Merten 1983, 32–33; Walde 1997; Zanker 1995).

I begin with writing equipment depicted on its own and argue that these images are symbols of professional practice, educational achievement and wealth or status, as well as eventually becoming an emblem of high office. Such images occur in Italy, but also in provinces, and there is of course regional and chronological variation. Writing equipment can also be depicted with people, either in use by them or by servants, which may be an important regionally specific expression of status and gender identities.

DEPICTING WRITING EQUIPMENT AS A BADGE OR SYMBOL

A number of tombstones depict writing equipment on its own and not in use by people; these tombstones are often from Italy. We have already encountered (Figure 5.4) the grave altar to M. Servius Primigenius from Aquileia (Italy), which depicts a wax tablet, inkwell and spatula immediately below the main inscription (Maionica 1903, 366, fig. 1; Gaitzsch 1984, 196, fig. 5; CILV 1, 1376). Very similar is the first- to second-century monument to Statorius Aper from Sulmona (Italy), which again depicts writing equipment (a theca and a tablet) immediately below the inscription (von Boeselager 1989, 228, fig. 15). We have also already discussed the late Roman Lauricius grave monument from San Lorenzo, Rome, which shows a writing set and wax tablets placed on either side of the dedicatory inscription (Figure 2.8c; von Boeselager 1989, 233, fig. 25; Reggiani 1990, fig. 73). These inscriptions do not identify the deceased's profession but it is possible that these men were professional scribes, as has been suggested for M. Servius Primigenius (Gaitzsch 1984, 196). On the other hand, sometimes the image may refer to skills central to a specified profession, as in the case of Titus Statilius Aper from Rome, whose tombstone depicts writing equipment including an inkwell and five scrolls on one side and a measuring rod and scale on another. This man is identified by the inscription on the front as a *ensor aedificiorum*, a surveyor of buildings (von Boeselager 1989, 232, fig. 22). The front of this Hadrianic monument depicts him in a toga,



8.1. Writing set on the funerary monument of Q. Aemilius Rufus from Salona (by kind permission of the Archaeological Museum Split, Inv. A-1771, Photo Ortolf Harl).

with a large scroll by his side that may represent building plans (Zimmer 1982, 197–198; No. 142). Here the instruments on the sides are supplementary to the main message conveyed by the epigraphy and elaborate carving at the front of the monument.

Another example in this group is the second-century funerary monument of Q. Aemilius Rufus from Salona (Croatia), which on one side depicts a double inkwell with long pens in a carrying set (Figure 8.1; Schallmeyer et al. 1990, 374–375, No. 476; Speidel 1996, 18, fig. 4). Both the inscription at the front and

the image of a lance on the other side identify him as a *beneficiarius*,¹ and it is as if both the symbol of his office and the equipment required to carry out his clerical and administrative duties are of equal importance to his status. We will consider tombstones of officers holding or using writing equipment in more detail later in this chapter. Another example where the writing equipment (wax tablets and theca) on its own is prominently displayed to symbolise the official status of the deceased is known from Bourges (France); the inscription describes him as a CE(N)SOR² (Espérandieu 1908, 329; No. 1450). A monument from Juvanum (Italy) shows the *sella curulis*³ as a symbol of office together with a container for scrolls with an inkwell and pen placed on top of it (Figure 2.6; Schäfer 1989, 304, pl. 51).

Without information on the surrounding images and exact context, interpretation can be difficult, but a relief such as the example from Buzenol (Belgium) depicting three book rolls, stacked wax tablets and an inkwell may symbolically stand for the accounting scenes discussed later in this chapter (Binsfeld 1973, 204–205, fig. 4).

Finally, writing equipment is commonly shown on Phrygian door-shaped tombs and other monuments in the wider region, which often depict objects associated with daily life, such as agriculture, textile working and bathing (Pfuhl and Möbius 1979; Waelkens 1986, 12; cf. Schaltenbrandt Obrecht 2012, fig. 15). On some examples the objects appear on their own, while on others they are placed beneath or beside portraits of the deceased, but in contrast to other regions of the Empire, they are not normally shown in use. Thus two monuments now in Istanbul (Turkey) depict a range of objects associated with daily and ritual life, including single inkwells with pens next to them (Pfuhl and Möbius 1979, Nos. 2271 and 2275). The bulbous form may be ceramic while others, especially those shown as parts of sets, appear to be of typical metal forms. Both single and double inkwells occur, always in association with *theca calamararia* and often with scrolls (e.g. Waelkens 1986, No. 33). Despite the fact that writing equipment is so prominently displayed on tombs, there are very few recorded inkwells from this region (e.g. Nos. 53, 118, 186), although this may of course simply be a reflection of publication levels.

In addition to depictions on stone funerary monuments, writing equipment not in use can be depicted in other media, notably Campanian wall paintings (Colour Plate 8.1); these sets usually consist of copper-alloy inkwells, pens, styli, writing tablets, scrolls and wax spatula, often associated with bags of coins (e.g. Birt 1907, fig. 148; Blanck 1992, fig. 42; Caratelli 1950; Croisille 1965, pl. CVI–CX; Eckstein 1957, 53–57; Riz 1990, 105–106; Meyer 2009). These

¹ Soldier performing an extraordinary task such as military policing or a special assignment.

² Roman official responsible for the census, public morality and aspects of the government's finances.

³ Chair symbolising official and political power.

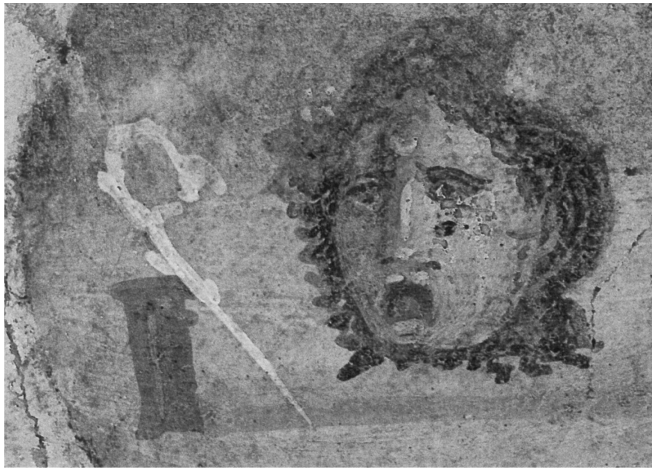
so-called still lifes of writing equipment on shelves are frequently used to illustrate aspects of ancient writing, but their context and even exact location remain debated. As to their meaning, Meyer (2009) has argued convincingly that these images reference the world of *negotium*, 'the sober, and, especially legal and financial, business of the family' (Meyer 2009, 569). The types of wax tablets depicted and the detailed rendering of all the writing equipment allow her to identify accounts as well as legal documents; scrolls here do not represent literary achievements but accounts. We are fortunate that the unique conditions created by the eruption of Vesuvius have preserved examples of such documents, some stored in cupboards or boxes (Roberts 2013, 109–113; García y García 2005, 95).

Meyer (2009) further argues that this aspect of writing is almost exclusively associated with men, while the figures of women holding a stylus and wax tablet in contemplative fashion represent idealised and symbolic images of leisure and literary pursuits (Figure 9.1; see Chapter 9). An interesting aspect of these still lifes is the highly realistic representation of writing equipment. On all these still lifes, the reed pen is shown either dipped into the inkwell, resting across it or leaning against it, presumably reflecting daily practice. Details of the inkwells, such as shape, presence or absence of a handle, body mouldings and lid mechanisms directly reflect archaeological finds (see Chapters 3 and 5).

While the depictions are realistic and most refer to financial or legal documents, the artist painting these still lifes could introduce an element of humour. Thus rather than just providing straightforward information such as a name on a sealed letter,⁴ the legible text on scrolls or wax tablets can consist of a love poem or an insult; here, a reversal and defeat of expectation creates a humorous situation (Kruschwitz and Campbell 2009; Meyer 2009, 575, Nos. 11 and 13).

A completely different take on these still lifes is provided by Riz (1990, 25 and 105), who sees some depictions of writing equipment as symbols of victory and votive offerings. Thus the well-known still life depicting a double inkwell (one with a *calamus* dipped into it) and a writing tablet is interpreted as a votive offering, perhaps for the *Saturnalia* (Riz 1990, 105, with further references, pl. 63.1). This is a view not echoed by others, but Riz makes an important contribution in also identifying four inkwells that are shown with a pen, but not with other writing equipment and which therefore are never discussed in the numerous publications that consider this material. Two second-style wall paintings, both from the peristyle of the House of C. Iulius Polybius,

⁴ For example, M Lucretio flam(ini) Martis, decurioni Pompei(s) = To Marcus Lucretius, Priest of Mars and Decurion (i.e. city councillor) at Pompeii: Blümner 1911, fig. 73; Roberts 2013, 108, fig. 113.



8.2. Inkwell on a Pompeian wall painting (by kind permission of Ministero dei Beni e delle Attività Culturali e del Turismo – Museo Archeologico Nazionale di Napoli).

depict a single inkwell with a copper-alloy jug, and the combination is again taken to suggest a votive offering (Riz 1990, 105–106, pl. 26.4 and 41.1). On two Pompeian roundels painted in the fourth style but without an exact provenance, the inkwell is depicted next to a tragic mask with a silver *calamus* with an acanthus-leaf decoration leaning against it (Figure 8.2; Riz 1990, 106, pl. 63, 2–3). Again, Riz interprets this as a symbolic votive offering, but the elaborate writing equipment and the mask may make reference more generally to the Muses and literary composition.

Unfortunately, there is still considerable uncertainty and debate about the exact location and context from which these Campanian still lifes, and indeed wall paintings depicting individuals holding writing equipment, came. Thus there is disagreement as to whether they were located in small rooms where writing may have taken place or in public areas such as peristyles (Riz 1990, 25, contra Eckstein 1957, 56–57). Even on as well-known an image as that of the couple from the House of Terentius Neo there are conflicting descriptions of the exact location within the house and how the painting was intended to be viewed (Clarke 2003, 264; Meyer 2009, 593; Roberts 2013, 107). Clearly, there is a need to consider the paintings' context to ascertain whether they relate to a room's function, advertised specific skills or even a profession or generally conveyed wealth and business acumen as well as education and literary allusions. From the best current catalogue of the material by Meyer (2009, 589–593) it is certainly noticeable that, where provenance is known, the still lifes more frequently come from locations such as hallways (x2) and small rooms/*cubicula* (x4, one left of entrance way and one off the atrium) and only once from a reception room (*tablinum*). By contrast, depictions of Muses occur twice in a *triclinium*, once in an atrium, once in a small room off the atrium and twice

in upstairs rooms of unknown function. This may suggest slightly different audiences for the two different types of Campanian images that depict writing equipment.

By the late antique period, the writing equipment case (*theca*) appears to have become a symbol or *insignium* of high Roman officials. Large versions of the writing set symbolically represent the emperor's power and authority as exercised by his officials and, as such, are depicted on ivory diptychs and in a late Roman administrative handbook, the *Notitia Dignitatum*. These sets are decorated with imperial portraits and appear to be associated specifically with judiciary powers (Berger 1981, 32–34, 184–190; von Boeselager 1989, 233–235, e.g. figs. 1, 21–27, 65–68, 106–108). Thus on the Rufus Probianus diptych made in about AD 400 we can observe note takers writing on wax tablets with the *vicarius*⁵ himself writing on or pointing to a scroll. The official *theca* with both the inkwell and the imperial portraits is clearly visible to his right (Figure 8.3). The insignia of high officials, in particular praetorian prefects and *vicarii*, in the *Notitia dignitatum* also show the *theca* placed on a tripod stand (Colour Plate 8.3; Berger 1981, 184–190, e.g. figs. 1, 21–27). The emblematic display of writing sets as symbols of judicial and official power is in apparent contrast to the overall decline in the number of inkwells recorded for the later Roman period.



8.3. *Theca* depicted on the Rufus Probianus ivory diptych (by kind permission of the Berlin Staatsbibliothek).

⁵ High Roman official in charge of a diocese.

DEPICTING THE ACT OF WRITING: PROVINCIAL ELITES

We have already encountered one of the Norican grave monuments from Maria Saal (Austria) showing a man writing with his right hand, supporting the scroll or codex with his knee, which is resting on a box containing scrolls (Figure 3.2; von Boeselager 1989, 230, figs. 18–19; Diez 1953, fig. 3; Schaltenbrandt Obrecht 2012, 27–30, fig. 39). Male individuals holding writing equipment feature on a number of other funerary monuments from the region (Diez 1953). A good example, of second-century date, is that of C. Tertinius Statutus and Catrona Severra, which depicts a male figure holding a wax tablet and stylus with scrolls and possibly an inkwell next to his feet while on the right his wife stands holding a mirror and towel. Statutus is identified as an *aedile* by the inscription (Hales 2010, 230, fig. 9.3; Piccottini 1996, 86, Nr 40). Also from Noricum, from the Roman town of Teurnia (Austria), comes the tomb of Terentia, a first- to second-century grave altar heavily damaged by early Christian reuse (von Boeselager 1989, p. 229, fig. 16; Egger 1979, 55–58, fig. 19a–b; Glaser 1983, 25–27, fig. 5). On the front only the name TERRENTIAE survives, while one side depicts a woman carrying a jug and the other shows a male with a writing set held under the left arm and a scroll in his left hand; unfortunately, the right hand is now missing. There has been a long academic debate as to whether the individuals depicted on these tombstones are servants or the honoured deceased themselves (Hales 2010, 231, footnote 8). While Diez (1953, 125) has argued that most are servants on the basis of their dress (tunic) and youthful appearance, Pochmarski (2004, 167) questioned whether they might represent sons assisting their commemorated father. Or could the image show the deceased himself? A rare example of a man dressed in a long-sleeved tunic and cloak writing on a wax tablet from Flavia Solva (Austria) may represent the deceased himself and is interpreted as indicating his specific profession as a *librarius* rather than educational achievement generally (Diez 1953, 131–133). A male figure depicted with fasces and a lance and holding an inkwell and writing tablet in his left hand from Melito Irpino in Italy may be a magistrate's assistant (Schäfer 1986).

Which way our interpretation leans has obvious implications for our understanding of hierarchies and status symbols, though not necessarily of the overall symbolic and social significance of literacy in the region. Either the individuals commemorated proudly display their own skill or they display their elevated status by having servants able to read and write. I would argue that current evidence does not permit us to resolve this question and that it is more important to consider the meaning of the images in terms of gender and provincial identities. Thus the *aedile* Statutus would have been responsible for the maintenance of public buildings and cultural affairs such as public festivals and was almost certainly literate, but for Terentia the picture is more complicated.

Either an elite woman like her had male and female servants with specific tasks, or the monument depicts her and her husband. In both variants, writing appears to be portrayed as a male activity within this region. As with depictions of women as Muses in Pompeii, we will need to compare the funerary evidence to the ideology of depictions (Chapter 9).

We do not know the profession of the man holding a possible inkwell in his left hand from Bourges (France); his costume identifies him as a native and he may well have been a scribe. However, for two monuments depicting writing equipment, the inscriptions refer to the academic profession of the deceased. From Limoges (France) comes a tombstone depicting a bearded man holding a scroll in his right hand and possibly an inkwell in his left (Espérandieu 1908, 386, No. 1584). The inscription identifies him as Blaesianus, ‘who has always loved the Muses’, as a professor of the grammatical arts and a master of conduct whose ‘limbs are now bound by eternal sleep’ in reference to Lucretius (Augusta-Boularot 1994, 688; Bost and Perrier 1989; CIL XIII, 1393). The tombstone dates to the middle of the second or beginning of the third century, and here both the inscription and the writing equipment clearly refer to the man’s educational achievement and profession. The same is true of a second century AD tombstone from Athens (Greece) depicting a bearded man writing on a diptychon with a bundle of scrolls shown by his feet whom the inscription identifies as an ‘orthographer’ (Moock 1998, 81–82, Nr 327, pl. 51a–b).

We have already seen that writing equipment can be depicted to symbolise the administrative duties of a *beneficiarius* and we know how important literacy was for the running of the Roman army (Figure 8.1; see Chapter 7). It is therefore no surprise that there is a whole series of monuments, frequently from frontier provinces such as Britain and Germany, that depict soldiers with writing equipment (Speidel 1996, 57–64, with extensive references and numerous illustrations). These usually depict wax tablets held in the left hand, while the right hand may hold a staff or standard; a good example is the tombstone of the *optio*⁶ Caecilius Avitus from Chester (Speidel 1996, fig. 28). On the tomb of Cordus from Mainz (Germany) the wax tablet is tucked into his belt, while he may hold a container for pens rather than scrolls in his left (Speidel 1996, 58–59, fig. 27). As well as holding writing equipment themselves, officers can also be shown with servant scribes, as in the monument of the *optio* Carminius Cupitus from Noricum, which shows the portrait busts of two men with two scribes (Diez 1953, 128, fig. 5).

As noted previously, monuments of the Greek East depict writing sets on their own, but more frequently such objects are shown next to or below

⁶ Optio = Junior officer, second in command of a century.

busts or full-length portraits of the deceased, as in an example from Kütahya (Turkey; Waelkens 1986, pl. 38, No. 240). Here and in other examples the writing equipment appears to be associated with the male figure, while women are depicted with objects associated with textile working and grooming. Thus, on other examples the theca appears behind or to the right of the man (Pfuhl and Möbius 1979, 542–544; Nos. 579 and 793). On the latter example, a third-century tombstone, further writing equipment (a stylus and tablet) as well as a strigil are shown below the male and to the side of a girl, who may be the daughter or a servant. It seems most likely, however, that the objects relate to the male given the strong association in this region between depictions of writing equipment and men. This may be confirmed by a final example, from Mudanya (Turkey; Pfuhl and Möbius 1979, 452, pl. 270; No. 1879). This shows a reclining male and two seated females; in front of them stands what is thought to be the son of the family holding a scroll; a wax tablet, scroll bundle and theca are depicted beneath him in shallow relief.

Another regional tradition of stone sculpture in which we may expect to encounter writing equipment are the scenes of daily life so frequently shown on monuments of the Mosel region (Freigang 1997). Sometimes identification is not certain. Thus some fragments from Neumagen (Germany) that are probably but not certainly part of the monument that shows a school scene depict a seated figure reading with another figure standing behind him; in front is a table on which stands an object interpreted as an inkwell (Espérandieu 1915, 346, No. 5149a; Freigang 1997, 314; Massow 1932, 136, fig. 83). It should be noted, however, that the object lacks the lid and pens normally depicted. Much more common and much more easily identified are scenes that depict the act of account keeping, usually with wax tablets being consulted or written on while coins are counted. We will see in Chapter 9 that very occasionally women can be shown writing down the accounts or helping with calculations, but in this region and elsewhere men are much more frequently portrayed in this role (Schaltenbrandt Obrecht 2012, 38). Such images can also include depictions of inkwells, as on a now sadly lost fragment presumably from a tomb in Gallia Belgica. This shows a seated man writing down the accounts while two others stand at a table with a large money bag; at the corner of the table is a cylindrical inkwell (Espérandieu 1913, 306, No. 4148). All these displays of literacy and accounting are interpreted as signs of the competence and wealth of merchants and officials (Merten 1983, 27–29, fig. 1; Baltzer 1983, 46–60). Similar accounting scenes occur in Rome, for example, in the early fourth-century Mausoleum G at St. Peter's in Rome (Mielsch and von Hesberg 1995, 134, fig. 141, colour plate 23); this depicts a seated merchant with a scroll, a servant with a wax tablet and a table with a bag of coins between them.

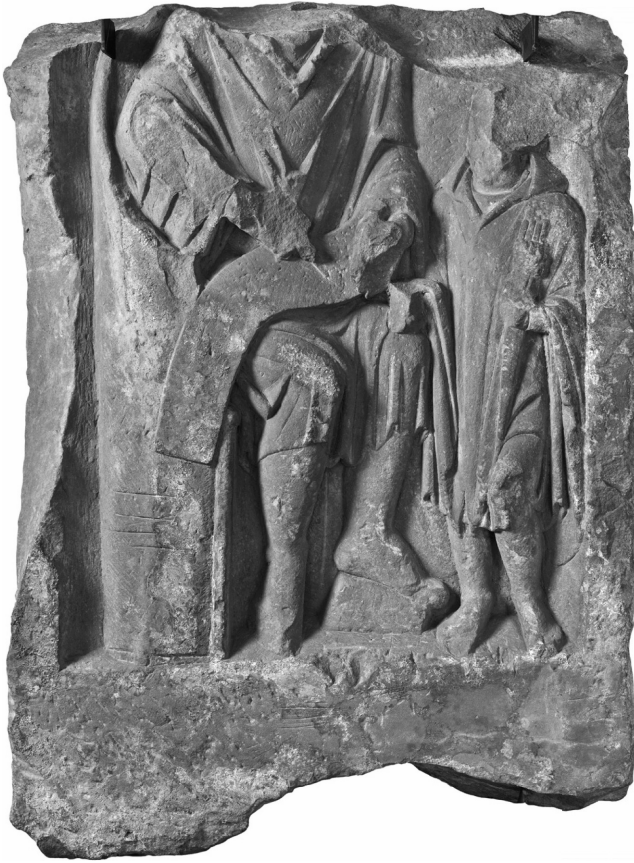
DEPICTING ELITES WITH A SCRIBE IN ATTENDANCE

As we have seen, there is considerable debate about whether the scribes represented on provincial monuments, especially in Noricum, represent the local elite or their servants. The situation is much clearer in monuments that show an elite male with a servant scribe in the same image. Here the servants and the writing equipment represent the elite male's powers, command and dignity (Walde-Psenner 1993). The same link between the display of writing equipment and status as a Roman official is suggested by the wall painting from the tomb of Vestorius Priscus in Pompeii, which depicts the young aedile standing in a doorway of what probably represents the atrium, with a slave to one side. The full array of writing equipment is arranged on tables to either side (Meyer 2009, 575–576, figs. 8–10; Clarke 2003, 187–203).

Figure 8.4 illustrates a monument from Strasbourg, which depicts a high-status male writing while being attended by his servant, who is holding an array of writing equipment ready for use (Hergott 2003). Status is expressed here in the size difference between the two figures, but we can be even more specific about status in a very similar monument from Trier, which again shows a seated male with a pen in his right hand and a scroll on his knees. Crucially, what appears to be a crossbow brooch on his right shoulder identifies him as a high official. To his right stands a boy, possibly a slave, dressed in a tunic and holding an inkwell in his right hand (Cüppers 1984, 208–209, fig. 95; Freigang 1997, 408, pl. 23; Schindler 1977, 55). The same idea is expressed in a sarcophagus from Rome dated to AD 240/250 that shows a young scribe carrying a theca standing next to his master, with a bearded figure (identified as *genius senatus*) behind them (Schaltenbrandt Obrecht 2012, fig. 12). Von Boeselager (1989, 230–233, figs. 20–21 and 24) sees this and a host of similar images as expressing the elevated status of magistrates. They can be shown standing or seated, sometimes being driven in a carriage; as we have already seen in the *Notitia dignitatum*, both the writing set and the carriage are insignia of praetorian prefects. Von Boeselager notes that in some cases only the equipment rather than the scribe may be represented; thus the presence of staff is implied by the object.

CONCLUSION

The symbolic meaning of writing equipment is slightly different from that of scrolls. Scrolls, usually held in the left hand, have been considered to represent wills, marriage contracts, citizenship documents or professional qualifications but may also generally act as a symbol of educational achievement ('Bildung') and ultimately Roman *humanitas* (Freigang 1997, 313–314; Johnson 2004, 160;



8.4. A seated male with attending servant from Strasbourg (by kind permission of the Musées de Strasbourg, photo Mathieu Bertola).

Merten 1983, 32–33; Walde 1997). The scroll is an important visual symbol depicting elite males as philosophers or intellectuals, but in the later Roman period there may be an increase in women depicted with scrolls and Muses (Huskinson 1999; Zanker 1995).

The question that this chapter began with is whether images of writing equipment simply reflect the social reality of relatively wide-spread literacy, the aspirations of an often provincial ‘sub-elite’ (McDonnell 1996, 469) or very high status indeed. This question was touched on when reviewing the tension between the elite literary sources mainly created in and for the City of Rome that are dismissive of scribes and those who have stressed the prestige associated with literacy and the opportunities for advancement it could offer (Chapter 3; e.g. Hopkins 1991, 140). Rather than use the visual material simply to illustrate ancient life, I have attempted to explore the meaning of depictions of writing equipment by dividing the data into three broad groupings: those

depicting objects on their own, those depicting the objects in use by the individual who may be the one commemorated or their servant and those where a servant uses them for a high-status individual. In this way, some more nuanced readings can be developed.

Writing equipment depicted on its own appears to symbolise professional practice, educational achievement and wealth or status and, as Meyer (2009) has argued for Pompeii, often stands for the world of *negotium*. It has also been suggested that some of the Campanian wall paintings may have had a votive function. In the late imperial period, writing sets become emblems of high office. This emblematic use of the theca is especially striking, and it is clear that these particular writing sets represented the emperor and expressed the judiciary powers of magistrates.

Writing equipment can also be depicted with people, either simply placed next to an individual or actually in use. We can further distinguish between images where it is not certain whether the individual holding writing equipment is the deceased or a servant, and those where a scribe is shown in attendance to a high official. No complete or systematic survey was possible here, but we have noted in passing that, where epigraphy provides further information, we are seeing officers in the army as well as members of the Roman administration such as aediles, decurions and censors. We have encountered those who may have been professional scribes as well as those such as teachers and surveyors for whom literacy was an essential requirement. We will see in Chapter 11 that literacy was also an important skill for doctors. In other cases, writing equipment is directly related to economic success. Both on the Pompeian still lifes and on funerary monuments from the Mosel region, where it is often shown in association with money bags and the counting of coins, writing equipment is interpreted as a symbol of economic competence (Freigang 1997, 310). There may also be change through time, with a development from straightforward representations of objects required for certain tasks and professions to a highly symbolic use in which the theca stands for imperial, official and judicial powers.

It remains to consider three overarching issues: gender, regionality and 'class'. From the available iconographic evidence, writing appears in many areas and in various media to be strongly associated with men. Men are shown next to or holding writing equipment, in an apparent reference to their professional, legal and financial roles. This is not to say that women are completely absent, but images such as the butcher's wife keeping accounts or the occasional example in the later Roman period of a woman holding a scroll are rare (Walde 1997, 244–246, pls. 70–71; cf. Jilek 2000, 101). While Meyer's (2009) argument that the women with writing equipment on Pompeian wall paintings represent Muses rather than more mundane writing is convincing, I feel that we have to

be careful not to take the decoration of tombs and domestic space as a direct reflection of ancient practice. It is clear that funerary images in particular are emblems, projecting a particular biography or identity for posterity; by studying actual graves and the material culture they contain, it may be possible to challenge this dominant public narrative (Chapter 9). We also need to consider the interplay of gender and age. The achievement of literacy was clearly something to be passed on to the next generation, and children could be shown with attributes of education, in particular book rolls and wax tablets (Freigang 1997, 316–317; see Chapter 10).

There is considerable regional variety in depictions of writing equipment, with the Mosel region, Phrygia and Noricum as well as parts of Germany and Gaul representing those parts of the Empire where objects associated with literacy are most frequently shown (cf. Schaltenbrand Obrecht 2012, 32–33). In Noricum, scribes are shown in action, whereas in Phrygia writing equipment takes its place amongst other objects of daily life and in the Mosel region the emphasis is on economic success and keeping good accounts. These are not just stylistic differences but variations in iconography, which must represent varying local responses to the imported classical models. The same argument has been made for sculptures depicting lions, which vary not just in style but also in iconographic details such as the prey being devoured (Hunter 2003). In each case we are observing local iconographic takes on Roman commemorative practices; and in each case this process is now viewed through the lens of modern preconceptions and study traditions (Hales 2010, 233). On an even broader level, these images can be considered within the context of debates about non-elite visual representations; it is difficult to define ‘elites’ in any case, and it is perhaps more useful to consider, as we have done, not just the style and form but questions of patronage and audience (Clarke 2003, 1–13). Clearly the people who commissioned the monuments discussed here aimed to express specific aspects of their identities; within the regions they lived in, most people did not have stone monuments and inscriptions, even if the iconography appears provincial when compared to City of Rome imperial monuments.

Purcell (2001, 669) argues that ‘writing and its implements are displayed as the tools of the trade: and the display underlines that it is a trade with tools’; in other words, these individuals can never be of the highest status. While this is true from a Rome-centric and elite-focused perspective dominated by the literary sources, the archaeology (both in the form of iconography and the grave goods to be considered in Chapters 9–11) tells a different story. This is a story of writing as an enabling technology and an aspiration amongst ‘sub-elites’, perhaps even something that defines those groups. Writing equipment in this

context can be seen as an ‘expression of pride in entering an elite community united by education in a common literary tradition’ (Pearce 2013, 138). We will develop these ideas in Chapter 11.

The next three chapters contrast the issues raised by an analysis of (mainly) funerary monuments with burial assemblages in order to explore questions of gender, age and status from an explicitly material perspective.

NINE

LITERACY AND THE LIFE COURSE: GENDER

This chapter considers how the use of inkwells, and more broadly, literacy relate to the ways in which gendered identities were expressed in the Roman Empire. The importance of gender to any archaeological analysis of social identity should be obvious (e.g. Nelson 2007; Sørensen 2000), and there is now an extensive literature on gender in the classical world (see Foxhall 2013 and Corbeil 2010 for recent summaries). This chapter first offers a brief review of the historical and archaeological evidence for female literacy to act as a counterbalance to the dominance of the ancient sources written for and by Roman men. It then contrasts the graves of both men and women buried with inkwells and identifies some fascinating trends, in particular the association of early inkwells with female graves and that of later types with men who are clearly linked to the army and administration. We have seen in Chapter 8 that Pompeian wall paintings depicting women raising a stylus in a contemplative fashion to the lip while holding a wax tablet are interpreted not as depictions of women engaged in writing in daily life but as representations of *otium*, that is ‘leisure, literary pursuits and imagination’ (Meyer 2009; cf. Schaltenbrandt Obrecht 2012, 35). Meyer argues that these images represent role-playing rather than depictions of daily reality. While correct about the history and symbolic meaning of these images, her conclusion perhaps goes too far in discounting them as evidence for female literacy. Thus Meyer argues that ‘if they attempt to depict ‘real’ women, they at best convey female aspirations to unreal qualities. Men could aspire to the literary life, but their companions – Muses or

women portrayed as Muses – could only aspire to inspire it’ (Meyer 2009, 589). This may be true for wall paintings but we will see that artefacts tell a slightly different story.

Given that the burials discussed here are from across the Empire, often from antiquarian excavations, there are very obvious issues caused by the lack of systematic anthropological assessment. Of 125 recorded inkwell burials, very few appear to have been sexed based on skeletal morphology; often graves are identified as those of men or women (or boys and girls) on the basis of grave goods, with the obvious dangers for interpretation that such potentially circular arguments pose (cf. Arnold 2007). Discussions of gender should not be limited to essentialist categories such as man and woman but should take account of the interplay of gender with other identities such as age and status (e.g. Arnold 2007, 120–121; Hill 2001). Chapter 10 is therefore concerned with the evidence for child literacy, first reviewing the written and iconographic evidence and then examining inkwells in children’s graves. There is evidence for literate girls, not just the slave scribes attested in the written sources but also elite girls, and the question of status generally is explored further in Chapter 11.

FEMALE LITERACY

Understanding literacy in general is fraught with difficulty, so it is no surprise that it is even more problematic to examine the question of female literacy given how underrepresented women are in the ancient sources. Nevertheless, elite women are well represented amongst early inscriptions in Etruria, and there is evidence for the dedication of inscribed styli by women at the sanctuary of Baratella in the pre-Roman Veneto, Italy (Lomas 2007a, 15; Lomas 2007b, 163–164; Lomas 2009, 20–21). During the Roman period, literacy levels amongst women are generally thought to have been lower than for men and higher at the centre than at the edges of Empire (Harris 1989, 259–272; cf. Laes and Strubbe 2014, 99). Another obvious difference is status, with female members of the elite achieving much higher levels of education, and of course being more likely to be mentioned in the ancient sources. Even then, the survival of poems and other texts written by women throughout antiquity is obviously affected by not just contemporary perception but also that of subsequent copyists (Homeyer 1979). Chance survivals such as the poems by Julia Balbilla inscribed on the Colossus of Memnon offer an intriguing insight as to what has been lost (Hemelrijk 2004, 164–170).

Studies of ‘educated women’ explore the opportunities elite women had to acquire an education, the impediments they faced, the level of education they could achieve and the ways in which educated women were perceived (Criore 2001, 74–101; Hemelrijk 2004, 2015). We will discuss the nature of Roman education in Chapter 10 but can note here that girls could attend

school at elementary and grammar level or be taught at home. In general, their formal education ended earlier than that of boys, due to their younger age at marriage, and therefore women did not normally receive formal rhetorical training. Throughout their life, their education was strongly influenced by male authority figures, in particular fathers and husbands (Hemelrijk 2004, 17–58). The written sources place a strong emphasis on the ideals of a moral education and ‘educated motherhood’. Female education should help women lead dignified, prudent and modest lives and guide the education of their children; such virtues are personified by highly educated elite women such as Cornelia, mother of the Gracchi (Hemelrijk 2004, 59–96). It has been suggested that genres like Roman love elegy required an educated and intelligent female audience (James 2003), but many ancient sources show considerable prejudice against educated women, often accusing them of sexual licentiousness, ostentation, meddling and excessive masculinity (Hemelrijk 2004, 84–92). Along similar lines the *docta puella*, a young women educated in poetry, music and dance, was often likened to a courtesan rather than a respected wife (Hemelrijk 2004, 79). On the other hand, considerable prestige was associated with literacy, and education was seen as a mark of social status; a literary education was an ‘object of pride amongst those who could afford it’ (Figure 9.1; Hemelrijk 2004, 72).

It is more difficult to understand literacy levels for women of lower status, such as those engaged in artisanal trades or retail, where some numeracy and literacy was probably required (Groen-Vallinga 2013; Holleran 2013; Lovén 2016). It is also now clear that some women were trained for professions that involved literacy. Female teachers (*paedagogae*¹ and *grammatica*) and a female philosopher (*philosophia docta novem musis* [CIL VI33898]) are attested in the epigraphic record, if very rarely (Bloomer 2015, 191; Criboire 1996, 21–24; 2001, 78–83; Laes 2011, 115; Rawson 2003, 166–167; Riess 2001, 181 and 186). Evidence for female philosophers is usually drawn from male sources, and therefore problematic (Desclauriers 2012). That they existed and could play a prominent role in a city’s intellectual life is illustrated by the case of the mathematician and philosopher Hypatia of Alexandria (Dzielska 1995). A number of inscriptions from Rome mention female scribes, secretaries and copyists, who appear to have been slaves or freedwomen, often working for elite women (Eichenauer 1980, 102–104; Günther 1987, 62–67; Haines-Eitzem 1998, 634–640; Treggiari 1976, 77–78). Female *lectores* or readers are also known (Starr 1991, 339). There is some evidence for female calligraphers in early Christian monastic contexts (Haines-Eitzem 1998); in general, there were literate women in early medieval elite and religious communities,

¹ It should be noted, however, that the term describes home tutors and that the main role appears to have been to chaperone the school-going child (Rawson 2003, 199).



9.1. Woman composing text on a Pompeian wall painting (by kind permission of Ministero dei Beni e delle Attività Culturali e del Turismo – Museo Archeologico Nazionale di Napoli, Inv. Nr. MN 9084).

ranging from nuns copying texts to women authoring letters, poems and saints' lives (Blanton et al. 2013; McKitterick 1989, 223–227; McKitterick 1994, 1–43; cf. Smith and Taylor 1995).

Occasionally, chance survivals such as private letters from Roman Egypt written by or for women suggest that there was perhaps more education for sub-elite women than is sometimes thought (Bagnall and Cribiore 2006). In archives such as the one of the early second-century Apollonios in Egypt women's voices, even when written by a scribe, are evident in turns of phrase and subject matter; some were clearly written by women (Cribiore 2002). These women include a female weaver and a servant or nurse, and there is also evidence for non-elite women writing in a military milieu at Vindonissa (Galsterer 1999, 45). The letters of Claudia Severa and Sulpicia Lepidina from Vindolanda are of course also well known (Figure 3.1; Greene 2013). Letters written by women can be about politics and finances as well as family matters, although, conventionally, women wrote only to husbands and male family members as well as other women rather than unrelated men (Hemlrijk 2004, 188–206).

We have seen in Chapter 8 that it is normally men who are shown managing accounts and taking payment; they are often seated and writing into a wax tablet account book. A frequently illustrated but nevertheless extremely rare exception to this rule depicts a butcher's wife from Rome keeping the accounts for her husband (Zimmer 1982, 94–95, No. 2). On a funerary monument from Augsburg (Germany) that unusually depicts a woman involved in an accounting scene, one of the seated males is holding the accounts while the standing woman is indicating the sums discussed by holding up her fingers (Schaltenbrandt Obrecht 2012, 38, fig. 30). Wax tablets are shown behind her, as are barrels indicating that the scene is set in a *taberna*. We will discuss the importance of numeracy rather than just literacy in Chapter 11.

While there was considerable prejudice against 'over-educated' women, commemorative monuments and rare written evidence may be taken 'to reflect a pride in female literacy, on the part of a variety of agents. This pride is presented not as a singularity – like a dog who walks on his hind legs – but as exemplary behaviour' (Bloomer 2013, 450). We have considered iconographic evidence already in Chapter 8 but should note here again that scrolls as symbols of both learning and status can be depicted with women; indeed it has been argued that representations of intellectual pursuits by women are represented on late Roman sarcophagi (Huskinson 1999). In the following we will examine the funerary record to see whether objects associated with literacy are strongly linked to gendered burial practices.

INKWELLS FROM FEMALE GRAVES

No attempt has been made to provide a complete corpus of female graves with writing equipment other than inkwells, but we may note, for example, a Neronian-Flavian female burial with four silver styli and two iron pens in Unterfahlheim, Germany (Ambs and Faber 1998, 400–404, fig. 13). A classic example of a mid-twentieth-century male excavator's prejudices regarding gender and literacy comes from the Grange Road cemetery in Winchester (Biddle 1967). Here a late Flavian grave contained eighteen glass counters, a seal-box, two styli, a pen knife, a double-ended spatula, a spoon, a bell, melon beads, a piece of banded flint and an iron ring as well as a copper-alloy and glass jug, a shale tray and multiple ceramic vessels. 'Dr Brothwell suggests that the cremated remains are those of an immature individual, perhaps a teenager or a fairly slender female. The contents of the grave, particularly the drinking and gaming equipment, and probably also the styli, suggest, however, that this is a man's grave' (Biddle 1967, 248). Such an interpretation can now be dismissed, as other female graves with styli and pens are known from Italy, Gaul and Germany (e.g. Ambs and Faber 1998, 441–444; Böhme-Schönberger 2010; cf. Fünfschilling 2012, 168–174; Gottschalk 2015, 110–113; Gottschalk

2008, 127–130). A very high-status example is the Simpelveld (Netherlands) sarcophagus, which contained the cremated remains of a woman aged between twenty-four and forty years as well as rich grave goods, including gold jewellery, a silver mirror and an iron stylus with silver inlay (Galestin 2001, 71, fig. 4). Amongst these female burials are some thought to be of girls, which will be discussed in more detail in Chapter 10 (Haberey 1961).

In the following, I will review the evidence for graves from across the Empire that have been described as being those of women and that contained inkwells; these attributions are based either on an osteological assessment of the human remains and/or the presence of grave goods traditionally associated with women. The table does show graves with objects wrongly identified as inkwells in italics, but they are not considered in the further analysis (Table 9.1 and Figure 9.3). Three double or group burials included a woman; these are discussed in Chapter 10.

Sexed female burials are rare, with the best examples coming from relatively recent excavations at Nijmegen and Vindonissa. The high-status cemetery at Nijmegen appears to have been for members of the provincial elite, who still followed some native traditions but were also very familiar with aspects of ‘Roman’ culture (Koster 2013, 268–272, with earlier literature). Five of these graves contained inkwells, highlighting how important literacy was to this group. Three were anthropologically identified as female (Graves 1, 9, 11). The women in Graves 1 and 11 died between the ages of twenty and thirty, while the woman in Grave 9 may have been slightly older (between twenty and forty). It should be noted that all three women had full writing sets, rather than just an inkwell, which could have been reused as a small container; this clearly demonstrates that they, or rather those mourning them, wished to display their education and skills. All three were within masonry enclosures and had exceptionally rich grave goods relating to personal adornment, feasting, lighting and bathing. All burials occurred between the end of the first and the first two decades of the second century.

Grave 1 was located within the largest masonry enclosure and contained between seventy and eighty objects (Koster 2013, 46–49). These included twenty-one Samian vessels, five other ceramic vessels, a lamp of type Loeschcke IX and twenty-five glass vessels. Especially remarkable is the presence of thirteen amber objects; there was also a rock crystal ring with a crescent and two stars in gold leaf. As well as the inkwell (No. 332) there was a wax spatula, two styli and a knife, several beads and a bone box. The woman buried in Grave 9 was accompanied by a rectangular mirror, a ring of rock crystal depicting a female bust, copper-alloy vessels associated with drinking (ladle, sieve, jug) and grooming (jug and patera set), a copper-alloy open lamp, a folding chair, some gold thread and multiple ceramic and glass vessels. In addition to the inkwell (No. 35) there were three styli, two pens, a small knife and a wax spatula

TABLE 9.1. Graves identified as female either by osteology and/or on the basis of grave goods

Sexing evidence	Site	No.	Type	Date	Other grave goods
Female on basis of antiquarian assessment of skull and grave goods	Augst	442	Pyxis/inkwell? (silver)	Third, possibly early fourth century AD	3 glass bottles, 18 gold sheet elements from chain/bracelet, iron finger ring with carnelian gemstone, 2 coins, nail/stylus
Not sexed but female on basis of bracelet	Bregenz	119	Unusual	AD 350–370	Copper-alloy bracelet worn on left arm
Female on basis of mirror and beads	Brindisi	184, 245–248	Biebrich and misc.	Mid-first century AD	Bone stylus, 4 wax spatulae, knife, dividers, folding ruler, 2 bone rulers, bone pyxis/inkwell, ceramic inkwell, 2 coins, stone container, glass urn, 7 glass vessels, 73 beads, pendant, rectangular mirror, copper-alloy finger ring, 2 copper-alloy buckles, a shell, wooden box, gaming equipment (4 dice, 15 bone and 5 stone pieces, 12 astragali, 1, 121 glass and 256 stone counters, 2 marble gaming board pieces)
Female cremation, possible double burial with child	Cologne, St. Severin II, 78	128	Dished lid	Later first – early second century AD	Copper-alloy mirror, wooden box, ceramic urn, 3 glass and 5 ceramic vessels, picture lamp, iron knife
Thought to be female on basis of grave goods; also remains of child under 6 years	Cologne, St. Severin V, 208	250–251	Misc. but not certain inkwell	Second quarter to middle of the third century AD	Glass mirror, wooden box, 6 ceramic and 2 glass vessels, necklace with glass and black mineral beads and amulet, silver pendant, coin
Female on basis of necklace and hairpins	Cologne Jakobstrasse Grave 64	221	Unassigned	Later third – first half of the fourth century AD	Stone sarcophagus: glass mirror, 2 ceramic vessels, box, necklace (211 black mineral beads, amulet), black mineral bracelets, black mineral and bone hairpins.
Female on basis of mirror, hairpins and beads	Cologne Jakobstrasse Grave 80	222	Unassigned	Later third – first half of the fourth century AD	Stone sarcophagus: lead mirror frame, 3 glass vessels, silver hairpin, ivory staff, object made from walrus teeth, 2 beads, copper-alloy ring, hairpins with sheet gold and coin.
Female on basis of beads and mirror	Krefeld-Gellep Grave 3475	102	Boeslager	After AD 215	3 styli, copper-alloy candleholder, copper-alloy strigil, 2 copper-alloy rings, 24 glass and 1 copper-alloy bead, circular copper-alloy mirror, coins (Marcus Aurelius and Caracalla), iron folding knife, Samian bowl, 3 ceramic and 4 glass vessels, wooden box with iron lock and key

Female on basis of beads, brooch and comb	Leverkusen-Rheindorf	424	Lid	-	Handled copper-alloy vessel, 5 beads, brooch, fragments of bone comb and ceramic vessels
Female on basis of beads and bracelets	Mautern	113	Lead	Second half of the fourth century AD	Glass bottle, bead necklace (glass and amber), black glass bead bracelet and intaglio of green glass depicting Orpheus
Female, aged between 20–30	Nijmegen Grave I	332	Lid	80–100 AD	Wax spatula, 2 styli, knife, 21 Samian vessels, 5 other ceramic vessels, ceramic lamp, 25 glass vessels, 13 amber objects, rock crystal ring, several beads, bone box
Female, aged between 20 and 30	Nijmegen Grave II	97	Dec?Gaulish with inner flange	AD 95–110	Wax spatula, 3 styli, knife, iron jug, copper-alloy bucket, 14 pottery and 14 glass vessels, pin, fibula, gold thread, burnt coin
Female, aged between 20 and 40; also mirror	Nijmegen Grave 9	35	Noll	First two decades of second century AD	Wax spatula, 3 styli, 2 pens, small knife, copper-alloy jug and patera set, copper-alloy vessels (ladle, sieve, jug), rectangular mirror, rock crystal ring with female bust
Cremation not sexed or aged but female on basis of mirror and bead	Picenum	85	Elegant early double	Augustan	Copper-alloy mirror, copper-alloy fittings from wooden box, 6 glass vessels, glass pendant/bead, collection of gaming equipment (die, astragali, glass counters and tokens), coin, bone ruler, bone couch fragments
Girl on basis of mirrors, diadem, beads and cosmetic vessels	Rome	206	Biebrich	Early first century AD	Ivory writing tablet, miniature silver vessels, lamps, silver mirrors, crystal and alabaster cosmetic vessels and palettes, gold rings, a gold diadem and hairnet, beads and cameos, a crystal cricket and shell, amber amulets, 70 glass gaming pieces, ivory and wooden box
Female (possible sexed, also distaff)	Rome, Boccone D'Aste	447	Not inkwell	-	Wooden box with silver lock, elaborate distaff
Possibly female on basis of mirror (and cosmetic instruments) but note also medical instruments	Siculi	86	Elegant early double	-	Medical instruments, keys, toothpicks, ear-scoops and mirrors (not illustrated)

(continued)

TABLE 9.1 (continued)

Sexing evidence	Site	No.	Type	Date	Other grave goods
<i>Female (aged in twenties) buried with 3-year-old child</i>	<i>Vindonissa</i> <i>Grave 94/298</i>	397	<i>Serrated disc – not inkwell</i>	<i>Second half of the first century AD</i>	<i>Ceramic jar, jugs, plates and bowls, fragments of tiles, pierced antler base, iron ring, iron nails and prehistoric ceramic sherd</i>
Woman (aged 18–25) and 3-year-old child; interpreted as female doctor	Vindonissa Grave 98–1	213	Biebrich	Mid-first century AD (As of Caligula for Agrippa and As of Augustus)	2 scalpels, tweezers, tubes for pens or part of spatula probe, glass urn, ceramic and glass vessels, 3 glass balsamaria, 3 iron nails, 2 coins, pig bones and botanical remains
Female cremation	Wehringen	441	Unassigned	ca. AD 200	Parts of bed and tables, strigils and balsamaria, 12 copper-alloy vessels (basins, jugs, paterae, sieves), > 50 glass and ceramic vessels
Family groups that include women					
Mature male and female	Budapest, Aranyhegy-árok cemetery, Grave 145	273	Misc.	-	Pierced coin, bone handle of knife next to male, woman wearing bead necklace and silver brooch, copper-alloy inkwell and iron stylus by her side
Double cremation: juvenile (Grave 4a) and older woman (40–50 years old: Grave 4b) 1 woman and 2 men	Günzenhausen	67	Stamped and decorated	Late Trajanic	4a: urn, stylus, 2 curved iron knives, iron nail, copper-alloy fragments, brooch, 6 bone counters, molten glass, fragments of Samian bowl, 2 jars and a bowl
	Skopje, Grave 698	123	Unusual	Late third –early fourth century AD	Woman: glass bracelet, glass cup and bottle, coin of Lucius Verus (161–169). Both men buried with writing equipment

Objects published as inkwells but not considered as such by me are shown in italics; these graves are discussed below but not included in the total for the graph in **Figure 9.3**.

(Koster 2013, 58–62). Grave 9 was located close to Grave 8 (interpreted as the burial of a Batavian cavalry officer, discussed further in the section on male burials in this chapter) within a rectangular stone enclosure. The objects placed into Grave 11 included an iron jug, a copper-alloy bucket as well as multiple pottery and glass vessels; also found were a copper-alloy brooch and some gold thread, presumably from some very fine textiles. This woman had a full writing set, consisting of an inkwell of possibly Gaulish manufacture (No. 97), a spatula, three styli, a pin and a knife (Koster 2013, 158–159). The two other graves from Nijmegen West with inkwells could not be sexed but are assumed to be those of men on the basis of the grave goods (discussed in detail in the section on male burials).

The two women from Vindonissa are both aged in their twenties, and both were buried with young children in the middle to second half of the first century AD. The woman buried with an inkwell of Type Biebrich (No. 213) also had two scalpels and is interpreted as a female doctor (see Chapter 11). The ‘lid’ (No. 397) from Grave 94/298 is thought by some to be from an inkwell but is in fact a box fitting (see Chapter 5 and Figure 5.24; Cocchiari and Andreassi 1988, 160–175; Fünfschilling 2012, 193; Koster 2013, 188, fig. 109–114, pl. 14.77).

Two graves from Cologne are thought to be of women, based on both cremated remains and grave goods. In one (St. Severin II, 78) a ceramic urn, a glass balsamarium, a glass bottle and jug, two ceramic beakers, a picture lamp and a copper-alloy mirror were placed into a wooden box; the assemblage is dated to the later first to early second century AD. In an adjacent area cut to a slightly different depth were pyre remains and burnt bones, an iron knife, a ceramic dish and two Samian bowls (one with animal bones) as well as the inkwell (No. 128). It is unclear whether these are additional offerings for the main female cremation or whether this is a double burial, possibly that of a woman and child (Päffgen 1992, 134).

Another, somewhat later cremation grave from Cologne (St. Severin V, 208) contained two objects that may well be inkwells but which contained a light-coloured material and could in fact have been cosmetic containers (Nos. 250–251; Päffgen 1992, 244). The two vessels were placed into a wooden box with six ceramic and two glass vessels, a glass mirror, a necklace with glass and black mineral (possibly jet) beads, a silver pendant, a black mineral amulet (depicting a couple and Medusa) and a dupondius of Marcus Aurelius. Amongst the cremated remains were those of a child aged under six years old, and the grave is interpreted as that of a woman and child and dated to the mid-third century AD (Päffgen 1992, 592–595).

It is unclear whether the grave at Wehringen is thought to be that of a female on the basis of the cremated remains or the grave goods, but the former appears more likely. The cremation was placed in a glass urn with a lead lid and wrapped in silk under a barrow near a villa. The exceptional grave goods are

described as parts of a bed and tables, strigils and balsamaria, twelve copper-alloy vessels and more than fifty glass and ceramic vessels, including an inkwell (No. 441; Nuber and Radnoti 1969, 37–49, figs. 6–13; Czysz et al. 1995, 532–533). I have classed the silver container from Augst (No. 442) as a pyxis rather than as an inkwell but that function cannot be excluded (Fünfschilling 2012, 192, 220, pl. 6, No. 148); it was found with three glass bottles, eighteen gold sheet elements from a chain or bracelet, an iron finger ring with a carnelian gemstone depicting Fortuna, two coins (Faustina I or II) and a nail or stylus fragment. The antiquarian assessment of the skeleton pronounced it female on the basis of the skull but that has not been confirmed more recently; the chain or bracelet may also point to a female owner (Schwarz 1997, 75–85).

The other inkwell graves listed in Table 9.1 are thought to be female on the basis of grave goods, with the obvious danger of circularity that this kind of argument entails. However, it is encouraging that in almost all cases multiple objects that are usually thought to have female associations occur in the same grave, for example, a mirror, hairpins and beads in two graves from Cologne (Nos. 221–222), a mirror and beads at Brindisi (Nos. 184, 245–248), a necklace and beads at Mautern (No. 113) and a mirror and pendant or bead at Picenum (No. 85) and Krefeld Gellep (No. 102). The same objects also occur in the anthropologically sexed graves (e.g. mirrors in No. 128 Cologne and No. 35 Nijmegen). The mirrors from a poorly documented possible doctor's grave at Siculi (No. 86) may also hint at a female occupant. A bracelet worn on the left arm at Bregenz suggests that the unusual inkwell (No. 119) was associated with a woman, as do the five beads, a brooch and fragments of a bone comb found with a possible inkwell lid (No. 424) in an unsexed cremation in Leverkusen, beyond the borders of the Empire. Elaborate distaffs made from an iron rod and amber beads are thought to be for symbolic use by elite women. A grave in Rome's Boccone D'Aste cemetery is probably that of a woman on this basis (Aurisicchio et al. 2002; Gennaro and Filippis 1995, 273, fig. 5); it also contained a wooden box with a silver lock and a silver-lidded container, which was published as an inkwell (No. 447) but is more likely a general container. An amber distaff was found in Grave 1 at Nijmegen (No. 332).

In summary, there are twenty-five inkwells from twenty graves thought to be those of women; however, of these five (Augst No. 442, Cologne Nos. 250–251, Rome No. 447 and Vindonissa No. 397) are not, in my opinion, inkwells. That leaves us with sixteen female graves, which are split between those osteologically sexed and those thought to be female on the basis of the grave goods (Figure 9.3). Many of the female graves appear to be of high status, as, for example, evidenced by the use of stone sarcophagi (Nos. 221–222) and the sheer number and quality of grave goods in some burials. Thus a grave from north of Rome contained silver mirrors, a gold diadem and hairnet as well as other amulets and silver miniature vessels; this is thought to be the grave of a

girl and discussed in more detail in Chapter 10. We have already discussed the exceptional range of objects in the Nijmegen, Picenum and Wehringen graves.

We may note that female graves with inkwells occur from the very early to mid-first century AD in Italy and Switzerland (Nos. 184/245–248 Brindisi, No. 85 Picenum, No. 206 Rome, No. 213 Vindonissa); in the later first to second century there are multiple finds from Nijmegen (Nos. 332, 97, 35) and Cologne (No. 128). Later third- and fourth-century examples are attested at Bregenz, Cologne, Krefeld-Gellep and Mautern (Nos. 119, 221–222, 102, 113). The spatial distribution is biased towards Italy and the Rhine provinces, but it is unclear whether this reflects ancient burial practices or modern publication and research traditions, with fewer graves from the older excavations of Danubian cemeteries osteologically sexed.

INKWELLS FROM MALE GRAVES

By default, most discussions about literacy are subconsciously or consciously written about men, an approach that makes women and subordinate men invisible in historical and archaeological accounts of the past (Alberti 2007; Corbeill 2010). While I have so far focused on women to redress this balance, there is clearly also a need to address how masculinities were constructed at different times and in different societies, and this should not just focus on stereotypical male qualities and objects (e.g. warrior graves) but be informed by gendered approaches more generally (Foxhall and Salmon 1998a and 1998b). Literacy appears to be an important aspect of elite male identities, but in many cases it is unclear why a grave with writing equipment is thought to be that of a male. It is likely that some attributions relate to modern prejudice rather than ancient practice. However, there are some graves for which we have osteological information and in many others a male identity is inferred from the grave goods, in particular from the presence of crossbow brooches, which are thought to have been worn by military and civilian officials and their male offspring (Bilkei 1980, 73–75, 1983). Table 9.2 shows male graves with objects wrongly identified as inkwells in italics, but again these are excluded from further analysis (Figure 9.3). Family groups that include men are considered in Chapter 10.

As discussed for females, sexing evidence is rare; this may be because of poorly preserved human remains or may relate to scholarly traditions and the date of the various publications consulted. Only four osteologically sexed males with inkwells have been recorded – at Berlingen, Ergolding, Salzburg and Vagnari.

The inkwell at Berlingen was part of a rich assemblage contained in an early Flavian tumulus: the cremated remains are of a ‘young adult male’, buried with an exceptional array of writing equipment (No. 107; Figure 2.5 and Chapter 10). At Ergolding, a richly equipped grave of a mature male marked

TABLE 9.2. *Graves identified as male either by osteology and/or on the basis of grave goods*

Sexing evidence	Site	No	Type	Date	Other grave goods
Said to be boy but from antiquities market	Athens	84	Elegant Early Double	–	Pair of strigils and oil flask suspended from large loop
Young adult male (sexed and on basis of axe and spearhead)	Berlingen	107	Stamped and decorated (probably Noll)	Early Flavian	Wax spatula, copper-alloy pen knife, a pair of dividers and bone ruler, ceramic and glass vessels, lamps, dice, axe, spearhead, iron shears, glass oil flask
Aged 18 years, not sexed but male on basis of crossbow brooch	Budapest/Aquincum	136	Dished lid	Middle of third century AD	Stone lined burial: iron stylus, bone smoothing tool, fragments of writing tablets, silver crossbow brooch, 4 coins, 2 iron knives
Male on basis of razor	Cologne	399	Biebrich	early third century AD	3 copper-alloy 'medical instruments', ceramic lamp, stone palette, stonemould, 2 ceramic vessels, razors, glass egg
Male on basis of dagger	Elsdorf	125	Elsdorf	Second half of second century AD	Awaiting publication, but include a dagger
Sexed male, mature	Ergolding	260	Misc.	Last quarter of second century AD	Circular stone setting (possible barrow): iron wax spatula, seal box and possible stylus, iron knife, 19 coins, fragments of silver ring and copper-alloy jug and patera, 3 copper-alloy strigils, rings, fittings, stud and strap ends, iron hobnails, iron knife, iron finger ring with jasper stone, 16 pottery vessels, molten glass fragments, pig bones
Said to be male, no evidence	Geresdlak	120	Unusual	Late Roman	No other grave goods or details
Male on basis of shield, arrow and belt; osteology: 10–16	Inota	41	Noll	Trajanic/Hadrianic	Tumulus burial: wooden box, Samian, pottery and glass vessels, shield, knives and arrow, animal offerings. In separate burial within the same mound: horse with bridle and harness fittings. Further finds in tumulus soil include silver-plated belt, intaglio and melon bead, two inkwell fragments
Said to be male	Intercisa	298	Removable lid, no chain	Unknown	Tile grave: iron stylus, writing tablet and leather case with silver clasp

Male on basis of sword; note also inscription	Isaccea	138	Keyhole aperture, lead mask	Third quarter of the second century AD	Iron sword, silver sheath or belt fittings, opal sword bead or amulet, bone handle with silver decoration, lamps, ceramic jug, two coins (Caligula); sarcophagus inscription to Publius Aelius Mithres (not certainly this grave)
Male, on basis of crossbow brooches and possibly skeletal remains	Karmacs	175	Tapering body	Mid-fourth century AD (Constantius II)	Glass bottle and beaker, ceramic lamp, possible inkwell, several coins of Constantius II, copper-alloy and silver crossbow brooch, three flints and iron strike-a-light, iron awl, iron knife, silver ring with glass paste intaglio, copper-alloy belt buckle. One crossbow brooch, belt and fingering worn, other objects placed by side and feet
Male on basis of sword and horse gear; 'Sarmatian warrior'	Kerch	10	Enamel/Type Johns	Mid-third century/ fourth century AD?	Antiquarian excavations: gold diadem, three gold coins of Papienus (providing a TPQ of AD 238), sword with a guard made of white jade, silver belt fittings and buckles, strips of gold foil, brooch and horse bit
Male, no evidence given	Keszthely-Úsztató	169	Removable, lid no chain	End of the fourth century AD	No other grave goods or details
Male, no evidence given	Keszthely-Úsztató	170	Removable lid, no chain	-	No other grave goods or details
No bone survival, but male on basis of crossbow brooch	Krefeld-Gellep	168	Removable lid, no chain	Fourth century AD	Inhumation burial, wooden coffin: ceramic jar, copper-alloy crossbow brooch, silver stud and copper-alloy belt buckle
Said to be boy but from antiquities market	Macedonia	194	Biebrich	-	Stylus and stylus box
Not sexed, aged 20–40 years; male on basis of weapons; 'Batavian cavalry officer'	Nijmegen Grave 8	37	Noll	AD 80–100 on basis of Samian ware	Wooden chamber: wax spatula, 2 styli, pen, knife, glass urn, weapons (shield and spears), 3 copper-alloy jugs, jug and patera set, copper-alloy bowl, copper-alloy open lamp, enamelled ampulla, 4 copper-alloy strigils

(continued)

TABLE 9.2 (continued)

Sexing evidence	Site	No	Type	Date	Other grave goods
Not sexed, older than 20 years; male names punched on vessels	Nijmegen Grave 21	94	Stamped and decorated	AD 100–120	Wooden chamber: iron strigil, copper-alloy jug and handled bathing dish, 14 ceramic and 2 glass vessels, lamp (Loeschcke IX), iron open lamp, knife, copper-alloy pin with lion, key
<i>Male on basis of weapons</i>	<i>Plondiv</i>	446	<i>Not inkwell (pyxis)</i>	-	3 copper-alloy bowls, 3 amphorae, copper-alloy jug and patera, copper-alloy lamp, copper-alloy ladle, 2 silver cups, silver mask, iron spearhead, knife and shield buckle
Male, on basis of crossbow brooch and possibly skeletal remains	Rusovce-Orcszvár	171	Removable lid, no chain (lid only)	Middle/end of the fourth century AD (Valens)	Coins of Valens, crossbow brooch, copper-alloy ring, buckle, glass cup
Male, on basis of crossbow brooch and possibly skeletal remains	Rusovce-Orcszvár	160	Removable lid with chain	Fourth century AD on basis of crossbow brooch	Crossbow brooch, broken glass goblet, ceramic jug and fragments of knife
Male on basis of skeletal remains ('possible doctor')	Salzburg	133	Keyhole aperture, no mask	Third century AD	Knife/wax spatula with decorated handle, glass bottle, ceramic jar, stone palette, copper-alloy spoon probe, elongated bone object (possible ruler)
Male, no evidence given	Tác	161	Removable lid with chain	-	No other grave goods or details
Male on basis of crossbow brooch, axe and spur	Taraneš	162	Removable lid with chain	First half of the fourth century AD	Stone cist: iron strylus and silver instrument described as eraser (comma-shaped toothpick), gold inscribed crossbow brooch, silver ewer, silver plate, silver spur, silver buckle, silver finger ring, copper-alloy handle, silver spoon, 4 glass vessels (diatretum/cage cup, 2 x unguent, scallop shell), game set (2 bone containers, 14 bone counters), iron axe, iron knife

Adult male (osteology)	Vagnari	473	Misc.	Late second to early third century AD	Bone ruler, iron wax spatula, iron punch, possible iron awl, 2 melon beads, copper-alloy ring, hobnails, 4 ceramic vessels, glass unguentarium, single iron nail
Male on basis of crossbow brooch and belt; 11–13 years old	Vörösmart	163	Removable lid with chain	Second half of fourth century AD	Elaborate belt, crossbow brooch, glass bottle, 2 copper-alloy rings interpreted as holders for rolls of parchment
Male on basis of crossbow brooch and sword	Zalaszentgrót	68	Unusual	Fourth century AD	Crossbow brooch, iron sword, coins (Constantinus I, Crispus)
Male, no evidence given	Zengővárkony	114	Lead	Constantine the Great	Coin of Constantine the Great
Family groups that include men See Table 9.1					

Objects published as inkwells but not considered as such by me are shown in *italics*; these graves are discussed below but not included in the total for the graph in **Figure 9.3**.

by a circular stone setting is dated to the last quarter of the second century; the other grave goods include copper-alloy vessels and strigils and are not especially gender specific (Struck 1996, 38–39, 183–185, pl. 67–72). The male inhumation burial from Salzburg contained a spoon probe and stone palette as well as a knife and is interpreted as possibly that of a doctor (Künzl 1982, 114–116). The burial at Vagnari is that of an adult male, and isotope and mtDNA analysis showed him to be likely of local origin (Prowse et al. 2010; Small et al. 2007, 165–172).

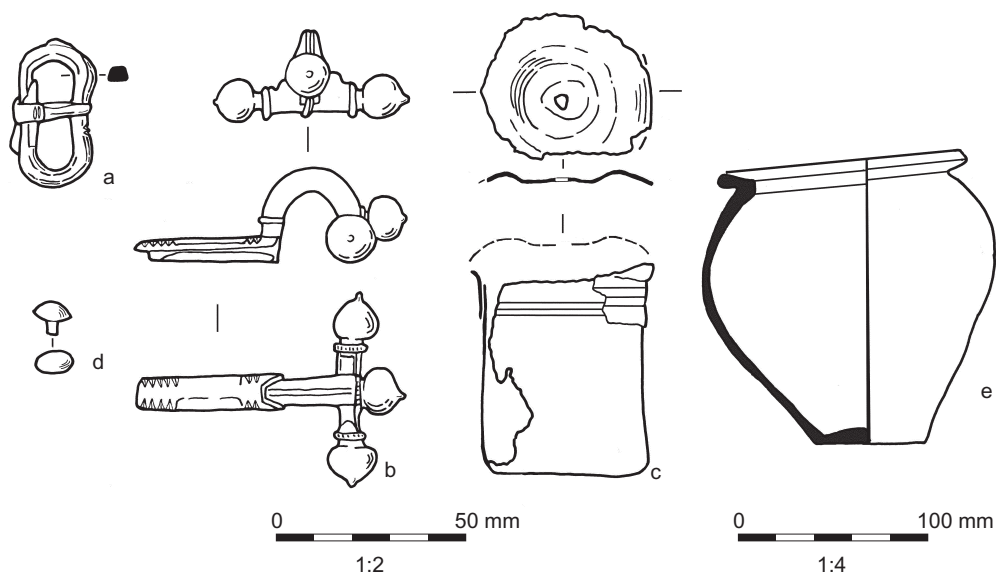
In graves such as that at Karmacs, the sources are unclear as to whether osteological as well as archaeological information was used to assign a gender; where the grave goods can be seen as male, as in Karmacs, this is not necessarily problematic, but in many cases (e.g. Geresdlak, Intercisa, Keszthely-Úsztató, Tác, Zengővárkony) a skeleton is described simply as male and no other grave goods are mentioned.

Where men are identified on the basis of grave goods, there is an obvious danger of circular arguments. Nevertheless, the basis for associating crossbow brooches with men is quite secure (Cool 2010, 283; Stout 1994, 85; Swift 2000, 3–4) and the same is probably true for weapon burials. There is now an extensive literature on later Roman weapon burials, the interpretation of which has changed from an emphasis on ethnicity to more nuanced interpretations that see such graves in terms of displays of power at times of instability (e.g. Böhme 1974; Halsall 1992, 2000; Martin-Kilcher 1993; Theuws and Alkemade 2000). Similar ideas may apply to the weapon burials of the late Iron Age and early Roman period (e.g. Crummy et al. 2007, 170–196; Feugère 1996; Pernet 2010). More attention is now paid to the cultural biographies and histories of weapons, and their presence as well as that of spears and other objects associated with the highly symbolic elite activity of hunting have been explained in terms of a symbolic mastery of the world and new claims on land (Theuws 2009). Most recently, isotopic analysis is re-introducing questions of origin and ethnicity to the debate about the kinds of identities expressed in such burials (e.g. Booth 2014).

Weapons occur in several inkwell graves, notably those that are distinguished by their overall wealth and often substantial structure. A sword with silver fittings occurs in the tumulus at Isaccea and an iron sword with the remains of its scabbard in a fourth-century grave at Zalaszentgrót. A dagger of Type Künzing was found in an only partially published burial at Elsdorf, which is interpreted as that of a veteran by the excavator (Gaitzsch 2015, 147, fig. 3). An axe and spearhead were found with the young male at Berlingen, a shield, knives and arrow with the ten- to sixteen-year-old at Inota, a shield and spears in Grave 8 at Nijmegen and an axe at Taraneš. The man at Taraneš was also buried with silver spurs; in the same tumulus as the teenager at Inota was a horse burial with bridle and harness fittings. What is probably

a pyxis rather than an inkwell at Plovdiv was found with an iron spearhead, knife and shield buckle. While spears may have been used for hunting rather than war, many of the other objects are interpreted as overt expressions of a martial identity, whether that was an aspiration or a reality. With the earlier graves of Berlingen and Nijmegen we may see the gradual absorption of native elites into Roman practices and the survival of pre-conquest customs. For Nijmegen, Koster (2013, 270) suggests that this individual was a member of the Batavian nobility, serving as a cavalry officer. The much later burial at Taraneš is described as an officer buried some way from the main Roman roads but near a late Roman settlement (Ivanovski 1987, 83). Isaccea is an important military and urban centre in Moesia, and while it is by no means certain that the individual buried with the inkwell is the same as the one named on a stone sarcophagus as the *arkarius* (cashier) of the Roman fleet stationed there, a military connection is suggested by the excavator. The burial in Kerch on the Crimean peninsula at the northern shore of the Black Sea was unfortunately discovered during a poorly documented antiquarian excavation; it contained a vessel of Type Johns, which I do not consider to be inkwells (Rostovtzeff 1923, 110–122). The region has a long and complicated history, with cultural and economic links both to the east and west and for a while was part of the Bosporan client kingdom (Andrási 2008, 1–9). The deposition of a sword, horse gear and a gold diadem in the grave may hint at Sarmatian elite traditions (Henry 1933, 139–141; Johns 1993, 164).

Crossbow brooches occur in inkwell graves at Budapest, Karmacs, Krefeld-Gellep (Figure 9.2), Rusovce-Orcszvár (Nos. 160 and 171), Taraneš, Vörösmart and Zalaszentgrót; with the exception of the Budapest, Rusovce-Orcszvár (No. 160) and the Zalaszentgrót burials, these individuals are all also buried with a belt. Belt buckles, strap-ends and other decorative elements are also prominent at Kerch and occur at Inota. While not all belt forms are necessarily associated with men or indeed with official status, in the contexts where they are associated with crossbow brooches, such an association can probably be made (Philpott 1991, 187–189; Pearce 2013, 142–143). The official status and wealth of these individuals is emphasised by the materials of some of the crossbow brooches, notably the inscribed gold example from Taraneš and the silver ones from Budapest and Karmacs. It is interesting to note that two individuals buried with crossbow brooches are young (an eighteen-year-old from Aquincum and an eleven- to thirteen-year-old from Vörösmart). Particularly in the case of the latter we are clearly dealing with inherited status, an aspiration to a status denied by a premature death or a gift from a relative who served as an official (see Chapter 10; Filipović 2010). The ‘boys’ from Athens and Macedonia have to be discounted, as the finds are from the antiquities market, and provenance and attribution are not secure.



9.2. Burial with inkwell, crossbow brooch and belt from Krefeld-Gellep (after Pirling 1989, pl. 16).

More rarely, inscription evidence is used to suggest male owners. Grave 21 at Nijmegen contained bathing and feasting equipment and a variety of other objects; the handled copper-alloy dish has two punched inscriptions, both male (Cornelius Asmenus, possibly a freedman, and Sextus Fassidius Soenus). The cremated remains are of an individual older than twenty years of undetermined sex; Koster (2013, 71–73) takes the punched inscriptions to relate to the vessel's owner and therefore argues that this is the grave of a man. This is of course possible, but equally, this may be a vessel with a long history of use, and the names of previous owners may have no bearing on the gender of the person buried with it. At Isaccea a sarcophagus found in a tumulus has an inscription to Publius Aelius Mithres, and as we have seen the grave also has a sword; again, it is, however, not necessarily the case that this particular named individual was buried in the inkwell grave (Simion 1995, 129).

Many of these male graves contain not just writing equipment but also, frequently, objects associated with bathing and grooming, which are further discussed in Chapter 11. A razor in an antiquarian find from Cologne (No. 399) may point to a male burial, but as this is apparently a doctor's grave, it is not impossible that the razor was used to shave hair before medical procedures. Finger rings, especially those containing intaglios, obviously relate to both literacy (at least in the sense of authorising documents) and high status. The man at Ergolding had both a silver finger ring and an iron ring with a jasper stone, while the one at Karmacs had a silver ring with a glass paste intaglio;

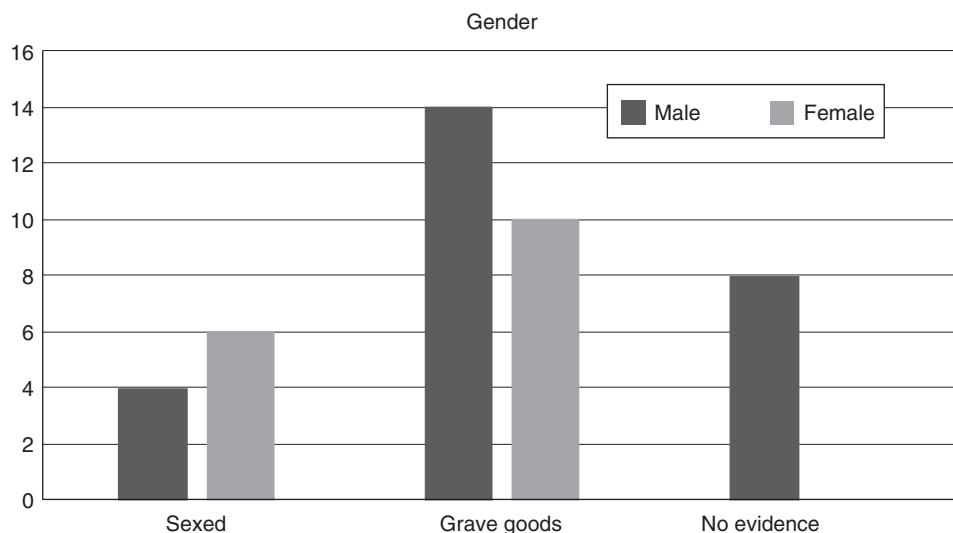
Rusovce-Orcszvár (No. 171) had a copper-alloy ring with an incised design and Taraneš a plain silver ring, while the teenager at Inota had an intaglio but no ring.

Inkwells frequently occur in male burials in the frontier provinces, especially in modern Hungary. Compared to the graves of women, it is noticeable that there are fewer early imperial examples, with the majority of male burials dating to the later Roman period. This is reflected in the inkwell forms, with later types with a more eastern distribution such as inkwells with removable lids dominating. I am not convinced that this is a real shift in the gender associations of inkwells, but rather it appears to be a reflection of regional burial rites and of the date range of crossbow brooches, which are commonly used to identify male burials and obviously date to the later Roman period.

CONCLUSION

In general, I would argue with Pearce that there is a performative and representational element to burial assemblages, which evoke the social practices through which identities, both of the deceased and the mourners, were created, maintained and challenged in a given society (Pearce 2013, 9). This includes gendered practices, bearing in mind that some of these may reflect a dominant gender ideology of a society or group, rather than a direct reflection of daily roles (Arnold 2007, 121). Analysing the limited funerary evidence of inkwell graves, it has become clear how infrequently the human remains have been subject to modern analysis; for much of the time we rely on gender attributions based on grave goods, which have obvious limitations.

Very occasionally, we have the beginnings of quantitative information; thus on the single, well-excavated cemetery at Krefeld Gellep (Germany) amongst the well over 6,000 later Roman graves excavated, only two contained inkwells and a further two possible inkwells. None are biologically sexed, but based on the grave goods, one (No. 168, Grave 3028) is male, while another (No. 102, grave 3475) is female (Pirling and Siepen 2006, 428–429). Only three styli were found, one in the grave of a woman (Pirling and Siepen 2006, 429). However, of course not all the Krefeld Gellep graves are dated to the Roman period or contained any grave goods at all; of those Roman-period burials that did (1,909 graves) and if graffiti (from 43 graves) are added, evidence for literacy would be at about 2 per cent (Gottschalk 2015, 113). Similar calculations can be performed for other cemeteries (Gottschalk 2008, 127–130), but I would argue that graffiti even more so than writing equipment point to literacy in the wider context and not necessarily of the deceased. In any case, rather than speculating about overall literacy levels, I am more interested in



9.3. Inkwells from the graves of men and women and the basis for their attribution (Total: 42).

the relative proportions of male and female burials, and indeed of children's graves. For example, in Switzerland, of twenty-one graves recorded as having writing equipment, seven could not be sexed and aged, eight are male, four female and two are of children (Schaltenbrandt Obrecht 2012, 42–46). In a discussion of seventeen graves from across the Empire with multiple items of writing equipment by Fünfschilling (2012, 169–174, table 2), five are men and three (plus two further possible examples) are women. This relatively strong showing of women in the burial record is borne out by the inkwell data (Figure 9.3).

The ratio of male-to-female inkwell graves is 26:16, indicating that while men are dominant, inkwells were more commonly placed in female graves than perhaps expected. Osteological analysis is still patchy, but gender attributions on the basis of grave goods can be made in many cases. The overall figures show a surprising number of female graves with inkwells. There are also fascinating spatial and chronological trends. The female burials include a higher number of first- to second-century graves from Italy and the Rhineland, while the male burials are common in Hungary in the later Roman period. Associations with games or accountancy and grooming (Chapter 11) are more pronounced in the earlier graves, while the later burials often appear to reference a military milieu. It should be stressed, however, that there are many late Roman weapon burials that completely lack writing equipment, instead emphasising feasting and bodily display (Theuvs and Alkemade 2000). Objects such as crossbow brooches are frequently used by archaeologists to identify men, but this creates a chronological bias, while female graves are more frequently identified on

the basis of osteological analysis. To some extent the overall numbers and the relative distributions of male and female inkwell graves are therefore reflecting burial rites and research traditions rather than directly reflecting gendered inkwell use. Gender should not be seen as a static category and will be related to age and other aspects of identity such as professional or social status in the following two chapters.

LITERACY AND THE LIFE COURSE: AGE

The practice of reading and writing can be related to the life course (e.g. Harlow and Laurence 2002, 2007; Parkin 2014; cf. Gilchrist 2012). Life course approaches highlight the role of age in shaping behaviour, contrasting biological, chronological and social age and exploring the myriad ways in which societies mark culturally constructed stages such as childhood, adolescence, maturity and old age. Age information was only available for twenty-five ink-well burials. Clearly, in many cases osteological information which should have been available for well-preserved inhumations has simply not been recorded or published. Another issue is the potential difference between biological age and both modern and ancient age concepts. Thus it can be difficult to decide whether a 'young' (18 year) old individual from Budapest (No. 136) or a 'young adult male' from Berlingen (No. 107) should be classed as 'adult'. Modern convention might make them so, but Roman society had fluid age categories based not just on physical development but also on individual development and capacity (Harlow and Laurence 2002, 54–78; Rawson 2003, 134–145). Thus while males could be married from the age of fourteen, military training only began at seventeen and full economic and political responsibility was not achieved until a man's mid-twenties. For women the transition to adulthood is usually marked by marriage, which could come as early as the girl's mid to late teens. There are some mature adults in this data set, for example, a group aged between twenty and thirty years (e.g. Nos. 94, 97 and 332 from Nijmegen). This includes two women in their twenties buried with presumably their

children at Vindonissa (Nos. 213 and 397). Another mother-child relationship may be represented by a double cremation burial of a juvenile and an older woman (forty to fifty years) from Günzenhausen (No. 67). We have already encountered the mature male from a double burial at Budapest (No. 273) and the mature males from Ergolding (No. 260) and Vagnari (No. 473). For two further inkwell graves, the remains are simply described as adult (Nos. 417 Duklja, Montenegro, and 470 Mérida, Spain); the latter is a doctor's grave and will be discussed in more detail in Chapter 11. The oldest attested individual is thought to be forty-one to sixty years old, but this unsexed cremation at Carnuntum (Austria, No. 88) contained no clearly gendered artefacts.

Due to the paucity of osteological data no detailed analysis of the use of inkwells across the whole life course could be carried out. This chapter is therefore concerned largely with the evidence for child literacy, first reviewing the written and iconographic evidence and then examining the new data on metal inkwells in children's graves gathered by this survey. The question of child literacy also raises interesting questions about status and gender, which will be explored below.

CHILDREN'S EDUCATION FROM WRITTEN SOURCES AND ICONOGRAPHY

As with adults, literacy levels of children are hotly debated (e.g. Corbier 2006, 77–90; Harris 1989, 175–284; Laes and Strubbe 2014, 99). There is considerable evidence for children's education, the quality of which was dependent on the family's income, with elite children tutored by private teachers at home or in fee-paying schools, often located near the centre of town (e.g. Bloomer 2013; Bonner 1977; Joyal et al. 2009; Laes 2011, 107–147; Marrou 1956, 229–313; Rawson 2003, 157–187; Reggiani 1990; Schaltenbrandt Obrecht 2012, 37–42). The education system, such as it was, consisted of three parts: from age six or seven to eleven children learned to read and write and learned basic arithmetic; from eleven to fifteen or sixteen they were introduced to literature, poetry and grammar and only beyond that age did they master rhetoric and philosophy. Both boys and girls attended school until their mid-teens, but only elite boys continued on to higher levels of education such as rhetoric as only men were expected to participate in public life. A typical scene of children sitting around their teacher reading from scrolls is shown in the famous relief from Neumagen (Schwinden 1992). At Amheida, recent excavations revealed school rooms with benches and with epigrams painted in red ink on the walls (Criboire 2015, 154–157).

Opportunities for education were generally better in towns than in the countryside and also varied considerably across the Roman Empire (Harris 2014, 290–295; Hemelrijk 2004, 25; Marrou 1956, 296–298). 'For the Romans,

as for so many other societies, education was an instrument of socialization and social mobility. The father of the poet Horace was an ex-slave, who took his son from their country town, at whose school centurions' sons were taught, to Rome, to have the education of senators and equestrians' (Rawson 2003, 150). Some of the emphasis on students travelling to Rome and Athens of course reflects the nature of the ancient sources, and detailed regional studies such as that of education in North Africa or of *grammatici* from across the Empire provide a welcome balance (Augusta-Boularot 1994; Vössing 1997).

Most of the sources are concerned with elite boys, but for the majority of the population, children only needed basic literacy and numeracy skills before beginning apprenticeships and work at the age of about twelve or thirteen, and in some cases at an even younger age (Bradley 1991, 103–124; Laes 2015). The young scribe (*puer notarius*) played an important part in late antique culture (Warland 1994, 181) and specialist slaves such as the thirteen-year-old Melior from Ostia (Italy) were clearly achieving high levels of competence (in this case in numeracy) by a relatively young age (Bérenger 1999; Kinsey 1979). A spinner of gold thread in fourth-century Rome was only nine years and nine months old when she died (Lovén 2016, 206). Amongst the elite, what we may consider quite young children today were involved with literate activities. For example, Cicero let his son Marcus observe the process of writing a letter from the age of six and later on his son was part of the then proconsul's entourage in Cilicia (McWilliam 2013, 270–271; Treggiari 2015, 245–250). The panegyrist Nazarius praises the son of Constantine the Great for being able to sign his name to validate documents at the age of five (Cribiore 1996, 147).

There is considerable information on teachers, whose status broadly reflected the hierarchy of schooling from primary (*magister*) to secondary (*grammaticus*) to tertiary (*rhetor*) level, although in reality these boundaries were probably much more blurred (Rawson 2003, 165). Many teachers were slaves and freedmen, and even grammarians and rhetoricians often had an ambiguous social status. On the one hand they mixed with the elite and their profession offered significant opportunities for upward social mobility, but ultimately, because all teachers were paid, they always remained excluded from truly elite status (Christes 1979; Kaster 1988). However, we must be aware of the difference between literary elite perceptions and the record of inscriptions set up by teachers themselves from the City of Rome and beyond; these show considerable pride in their knowledge and education and this pride may have increased in the later Roman period, with the developing ideal of *paideia* (Augusta-Boularot 1994; Riess 2001).

When learning to read students followed an established sequence, from letters to syllables to whole words and sentences; these were taught through what to modern eyes appear monotonous repetitions and drills in noisy and interactive classrooms (Johnson 2015). When learning to write, pupils progressed

from tracing letter shapes to copying text and probably learnt to write (i.e. copy) without a real understanding before being able to read more complicated texts (Cribiore 1996, 140–152; Vössing 1998). Teaching methods consisted largely of fear of physical punishment and endless repetition, but there are references to tactile exercises such as wood or ivory letters for children to play with and children tracing letters on wax and wood tablets; cakes in the shapes of letters could be given as rewards (Bloomer 2015; Joyal et al. 2009, 171–175; Johnson 2015, 137; Marrou 1956, 272). In terms of material evidence for teaching, some crudely written graffiti have been interpreted as the first attempts at writing by children (e.g. Schaltenbrandt Obrecht 2012, fig. 35). Another interesting study examines the question of schooling from a palaeographic perspective by defining pupils' and teachers' hands using criteria such as a lack of uniformity, stroke sequence and speed (Cribiore 1996). Such school exercises exist on various writing materials from Graeco-Roman Egypt, with different materials preferred for different educational tasks and levels; thus the copying of letters mainly occurs on wax tablets and ostraca and that of longer texts on papyri (Cribiore 1996, 69–72).

Numeracy would also have been a critical skill and of importance in daily life, for example, when managing weights, amounts and costs in the market (Schaltenbrandt Obrecht 2012, 37–38). The link between literacy and numeracy was important throughout the ancient world (Lomas 2007a, 13; Robson 2007). Most children were taught basic numeracy, while only a few progressed to advanced mathematics (Sidoli 2015). In terms of the material culture and bodily practice of numeracy, an elaborate set of hand signals was used to record numbers and sums (Menninger 1992, 201–220; Marrou 1956, 157; Schaltenbrandt Obrecht 2012, 38, fig. 30), and these occur on bone counters such as those from Brindisi (Figure 11.2a and Chapter 11; Cocchiari and Andreassi 1988, 160–175). The abacus was also used, which employed stones, glass pieces or bone discs that are indistinguishable from game pieces (Menninger 1992, 297–318; Schärli 2003, 519; Schärli 2006, 65–94; Reggiani 1990, 55–58).

We have already seen that literacy was an important status symbol, and as such, representations of individuals or their servants holding writing materials are quite common. Some show children, such as the male pupil holding a wax tablet and stylus on a mosaic from Trier, that also depicts other scenes of learning and associated deities (Merten 1983, 29–30, fig. 2). A tombstone from Metz depicts a boy holding a stylus in his right and a *codex ansatus* and *volumen* in his left hand (Figure 10.1; Freigang 1997, pl. 39). A similar scene from modern Turkey shows what is thought to be the son of the family holding a scroll in front of a reclining male and two seated females; a wax tablet, scrolls and theca are depicted beneath him (Pfuhl and Möbius 1979, 452, pl. 270; No. 1879). When considering iconographic evidence, it can be difficult to distinguish between children and slaves, where small size may reflect the low status



10.1. Tombstone of a boy from Metz (by kind permission of Golden Court Museum, Metz Métropole, photo Laurianne Kieffer, No. 75.38.53).

of a servant rather than indicate a child (von Boeselager 1989, 231). In general, boys are more frequently depicted than girls in such scenes (Freigang 1997, 316–317; Rawson 2003, 206), but we will now discuss first the written and then the iconographic and material evidence for educated girls.

Girls' Education

While both boys and girls attended school from the age of six, many girls are thought to have left school in their mid-teens to learn a trade or be married, thus gaining only basic competence in reading, writing and numeracy (Hemelrijk 2004, 17–58; Rawson 2003, 197–209; Vössing 2004). However,

wealthy girls could be tutored at home, and elite women such as female members of the imperial family could be praised for their writing style, poetry or rhetoric (Hemelrijk 2004; Laes and Strubbe 2014, 99–102). That the education of girls was also relatively commonplace amongst the upper class of the provinces is demonstrated by letters preserved in the Apollonios archive and the accounts of St. Perpetua's martyrdom (Cribiore 2002, 156; McKechnie 1994). Elite women were of course not expected to argue cases in public or engage in politics, but were educated to enrich the home; a good education was important to upper-class social and cultural life and, as such, expected of women, especially mothers. Some ancient authors argued for the education of girls even in more advanced subjects such as philosophy, notably Musonius Rufus in his 'On why daughters should receive the same education as sons' (Caldwell 2015, 19–21; cf. Hemelrijk 2004, 61–62; Rawson 2003, 201–203). This should not be mistaken for a proto-feminist call for equality; rather, this Stoic philosopher argues that while there are different roles for men and women, it is important to instil values such as self-discipline, modesty and courage within the family and household. Education for girls was ultimately concerned with 'shaping girls into modest proto-wives' (Caldwell 2015, 16). While education was a critical mark of social status, the ancient sources frequently stress that too much or the wrong kind of learning in girls and women was viewed as transgressive and disruptive; such women were described as pretentious, meddlesome and overbearing and associated with sexual licentiousness (Caldwell 2015, 27–35; Hemelrijk 2004, 75–96; Rawson 2003, 203–204). Again, it should be noted that much of this concerns the very elite of Roman society. We have already seen that, below this social level, women could be teachers and scribes as well as engage in trades or shop keeping where some numeracy and literacy may have been required (Cribiore 2001, 78–83; Groen-Vallinga 2013; Günther 1987; Haines-Eitzem 1998, 634–640; Holleran 2013; Laes 2011, 115; Lovén 2016; Rawson 2003, 166–167; Treggiari 1976, 77–78). Female slaves could be apprenticed in a variety of professions, but based on the evidence of apprenticeship records from Egypt, freeborn girls of artisanal families may have been restricted to domestic work and marriage (Bradley 1991, 108; but see now Laes 2015, 476).

The education of children, usually boys standing in front of their teacher or father, is often depicted on sarcophagi as a symbol of high status (Amedick 1991, 65–67), but there are some examples that show girls. An Antonine sarcophagus from Portonaccio shows a girl holding a diptych and stylus surrounded by women, possibly Muses (Amedick 1991, 151, pl. 62.7 and 63.2), and a fragment now in Richmond depicts a seated girl reading to a woman, with a muse in the background (Amedick 1991, 142, pl. 62.5). A second-century tombstone of unknown provenance now in the British Museum depicts a seated girl (the ten-year-old Avita) writing with a stylus on a tablet, with a

stand with an open scroll in the background; her dog playfully raises a paw to her chair (Binsfeld 1973, 201, fig. 2; Pfuhl-Möbius 1979, No. 959; British Museum Inventory Number 1805.7-3.187). Little Lucilla from Reims carries wax tablets in her left arm and possibly holds a writing set in her right hand, and an epitaph from Rome to the 8-year-old girl Magnilla describes her as 'learned beyond her years' (Schaltenbrand Obrecht 2012, fig. 33; Rawson 2003, 47, fig. 1.10).

INKWELLS FROM CHILDREN'S GRAVES

Perhaps reflecting the importance of education and schooling in the life of an elite child, there are a number of children's graves with writing equipment from across the Empire. No attempt has been made here to compile a complete catalogue, but we may, for example, note that at Portorecanati in Italy a child's inhumation was found with a bone stylus, an iron 'spatula', a lamp, four bone astragali and a ceramic vessel in an amphora-covered grave dated to the end of the second or first half of the first century BC (Sorda 1974, 287–289, fig. 193). The Vespasianic cremation burial of an eight- to 10-year-old child at Petinesca in Switzerland, in addition to many ceramic vessels, contained three styli and a brush holder, while at Augst (Switzerland) a later first-century burial of a seven- to 10-year-old child contained a stylus (Bacher 2007, 140–141, pl. 45; Fünfschilling 2012, 199). In the mid-second-century cremation burial of a four- to five-year-old child at Xanten, what may be an iron stylus and a copper-alloy compass were found, as well as a small iron axe and hammer, a strigil and glass aryballos, a comb, two bone dice, a ceramic vessel, a wooden box with sheep wool and a needle, leather shoes, a lamp and worn coin of Caligula (Bridger 2014). Tools are a very unusual grave offering, and both textile working, writing and wood working are potentially represented. In Krefeld-Gellep a child's inhumation (Grave 4145) had two ceramic vessels with the graffiti 'Tata', a childish rendering of 'father' (Gottschalk 2015, 110; Pirling and Siepen 2006, 549). Table 10.1 lists graves thought to be of children that contained metal inkwells.

In this catalogue, 131 inkwells out of a total of 440 examples came from 125 graves. Here, I focus on the very few individual children's graves as cases where women were buried with very young children (such as Vindonissa Nos. 213 and 397 and Cologne, St. Severin, Nos. 128 and 250/251) have been discussed previously. The situation is different for the double burial from Günzenhausen where the inkwell (No. 67) was found with a juvenile and not the older woman also in the grave.

One difficulty with analysing children's graves is the lack of detailed osteological information. While there have been some advances in the sexing of infant burials, skeletons cannot normally be sexed before puberty (cf. Lewis

TABLE 10.1. *Graves of children buried with inkwells*

Ageing evidence	Site	No	Type	Date	Other grave goods
Said to be boy but no evidence 'Young adult male'	Athens Berlingen	84 107	Elegant early double Stamped and decorated	– Early Flavian	Pair of strigils and oil flask Wax spatula, copper-alloy pen knife, a pair of dividers and bone ruler, ceramic and glass vessels, lamps, dice, axe, spearhead, iron shears, glass oil flask
Aged 18 years, not sexed, but male on basis of crossbow brooch	Budapest/Aquincum	136	Keyhole aperture and mask	Middle of the third century AD	Stone lined burial: iron stylus, bone smoothing tool, fragments of writing tablets, silver crossbow brooch, 4 coins, 2 iron knives
Osteology: 'juvenile' (Grave 4a) in double cremation with woman (40–50 years old: Grave 4b)	Günzenhausen	67	Stamped and decorated	Late Trajanic	4a: urn, stylus, 2 curved iron knives, iron nail, copper-alloy fragments, brooch, 6 bone gaming pieces, molten glass, fragments of Samian bowl, 2 jars and a bowl
Osteology: 10–16; grave goods male	Inota	41	Noll	Trajanic/Hadrianic	Tumulus burial: wooden box, Samian, pottery and glass vessels, shield, knives, arrow, animal offerings; in separate burial within same mound: horse; in tumulus soil silver-plated belt, intaglio and melon bead, two inkwell fragments
Said to be boy, but no evidence	Macedonia	194	Biebrich	–	Stylus and stylus box
Osteology: 10–11; no sexing information	Monte Carru di Alghero	490	Misc.	First–second century	Iron wax spatula, bone ruler, reed pen, writing tablet
Child (records confused and attribution to child uncertain)	Öbuda	297	Misc.	Second–third century AD	–

(continued)

TABLE 10.1 (continued)

Ageing evidence	Site	No	Type	Date	Other grave goods
Young girl or woman on basis of grave goods	Rome	206	Biebrich	Early first century AD	Ivory writing tablet, miniature silver vessels, lamps, silver mirrors, crystal and alabaster cosmetic vessels and palettes, gold rings, gold diadem and hairnet, beads and cameos, crystal cricket and shell, amber amulets, 70 glass counters, ivory and wooden box
Child (no detailed age or sexing information)	Szóny – Járóka	135	Misc.	-	2 copper-alloy styli and a bone 'smoothing tool'
Child (no detailed evidence)	Tác	230	Unassigned	Possibly Later Roman	-
Osteology: 11–13; grave goods male	Vörösmart	163	Removable lid with chain	Second half fourth century AD	Elaborate belt, crossbow brooch, glass bottle, 2 copper-alloy rings interpreted as holders for rolls of parchment
Osteologically aged: child	Wechmar	291	Misc.	Mid-second to mid-third century AD	Urned cremation, melon bead

2007, 47–55; Waldron et al. 1999). Thus in many reports it is unlikely that the terms ‘child’ or ‘juvenile’ are based on biological criteria, and attributions to boys or girls are usually modern guesswork, sometimes not even based on grave goods. There are also differences between social and biological age, and of course Roman society had particular systems of age division (Parkin 2014). We have already touched on the question of when the transition to adulthood occurs and noted that this varied between boys and girls (Rawson 2003, 134–145; Laurence and Harlow 2002, 54–91; Hemelrijk 2004, 9; cf. Lelis et al. 2003). In the following I therefore review the few burials where inkwells were found in the graves of children or (loosely defined) juveniles.

A possible inkwell comes from a cemetery located beyond the frontiers of the Roman Empire at Wechmar (No. 291); the grave contained a ceramic vessel and a melon bead, and osteological analysis suggests it is that of a child. The cemetery includes weapon graves and some Roman imports, which may point to a community that had links to the Roman military (Kleemann 2007). There are some children's graves that have been attributed to either boys or girls, but such attributions usually say more about the authors' assumptions than ancient practices. Thus two Hungarian graves, one for which it is not certain that it is a child's and the other not aged and sexed and without gendered associated artefacts, are both referred to as those of school boys (Bilkei 1980, 73). A copper-alloy cylindrical inkwell, two copper-alloy styli and a bone tool were found in the inhumation grave of a child (no age or sexing information given) at Szőny – Járóka (No. 135). Another inkwell is said to be from a child's grave in Óbuda – Testvérhegy (No. 297), but the records for this inkwell are confused and an attribution to a child is by no means certain. Another Hungarian child's burial (Grave 244) in the later Roman cemetery of Gorsium (Tác) contained a fragment of a copper-alloy inkwell (No. 230). In cases of supposed grave groups acquired in the antiquities trade, it is unclear on what evidence a grave assemblage is even attributed to a child (usually a boy). Now in the Boston Museum of Fine Arts are two inkwells of Type Biebrich, a stylus box and styli, all said to come from a grave in Macedonia, which is thought to be that of a boy (No. 194; Comstock and Vermeule 1971, 324, Nos. 454–455). A stamped double inkwell once in the Berlin Antikensammlung and now in the Pushkin Museum Moscow is said to be from the grave of a school boy from Athens (No. 84; Noll 1988, 88). It was associated with a pair of strigils and an oil flask, but as the assemblage was acquired on the Paris art market in 1904, this provenance and the attribution to a boy are not supported by any evidence.

A better case can perhaps be made for four elite teenagers from different parts of the Empire. A ‘young individual’ (ten to sixteen years, but not sexed) was buried in a rich tumulus burial at Inota (No. 41; Palágyi 1981). Amongst the grave goods were weapons (shield, knives and arrow) and in a separate burial within the same mound was a horse. Two inkwell fragments came from

the tumulus soil, which also yielded a silver-plated belt and a melon bead; these are therefore not strictly grave goods. All the finds point to a male individual. A copper-alloy inkwell with a removable lid and chain came from the grave of an eleven- to thirteen-year-old at Vörösmart in Croatia; also found were a belt richly decorated with Christian and pagan motifs and a crossbow brooch (Filipović 2010, 64, No. 70). The excavators comment that this may point to the profession of the individual but his age perhaps suggests inherited status rather than actual professional achievements. The recent discovery of a cremation burial containing a full set of writing equipment at Monte Carru di Alghero (Italy) is osteologically aged as that of an individual ten to eleven years old; there are no other grave goods, further highlighting the importance of educational achievement for this individual and the mourners (No. 490; La Fragola 2015).

Two graves are those of males in their late teens who may already have fulfilled adult roles. At Berlingen in Belgium a rich tumulus grave contained a range of writing equipment and weapons; the cremated remains are described as those of a 'young adult male' (No. 107; Roosens and Lux 1973). There is also the grave a young (eighteen years old) adult from Budapest; the skeleton does not appear to have been sexed, but a silver proto-crossbow brooch amongst the grave goods may suggest it was a male (No. 136; Nagy 1935).

We have seen that writing equipment was used by elite women to display their education and status in Chapter 9, but there is no clear-cut evidence for girls being buried in this way. The most likely candidate is the exceptionally rich, early first century AD grave found to the north of Rome, which contained two inkwells of Type Biebrich (Figure 10.2; No. 206; Platz-Horster 1978, 184–195; Zahn 1950/1951, 281–282, fig. 5). The grave goods consist of a set of miniature silver vessels, lamps, silver mirrors, crystal and alabaster cosmetic vessels and palettes, gold rings, a gold diadem and hairnet, beads and cameos, a crystal cricket and shell, an amber walnut and amulet of a dwarf, seventy glass gaming pieces, an ivory box, a wooden larger box, the inkwells and an ivory writing tablet. This is certainly the grave of a woman, and we will see in Chapter 11 that counters in particular may have been associated with women and children. The grave was published as that of a young girl on the basis of the size of the ring, the presence of the miniature vessels and the amuletic objects, but it is impossible to determine her exact age. In general, it has been suggested that the graves of girls who died before marriage and motherhood are characterised by certain distinctive grave goods, in particular miniature objects, *crepundia* (often amulets that produced an apotropaic rattling sound), dolls and jewellery (Martin-Kilcher 2000). It is known from written sources that girls dedicated amulets and toys before their wedding so the inclusion of these objects in the graves of those who died young may have been

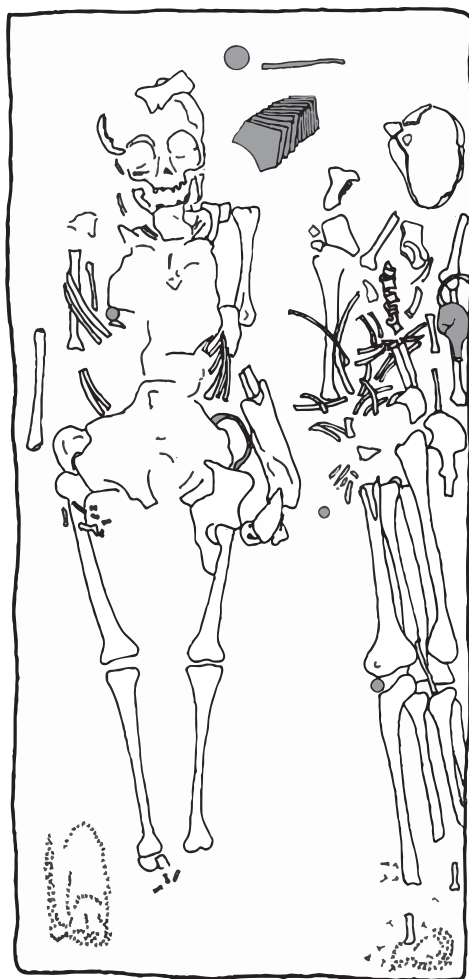


10.2. A girl's grave from Rome (by kind permission of the Staatliche Museen zu Berlin – Antikensammlung, Inv. 30891, Photograph Johannes Laurentius).

as votives, as symbols of a completed childhood or non-attained marriage (Martin-Kilcher 2000, 67–69). However, such graves are rare and probably relate to wealth as much as to more specific beliefs. Of the thirteen graves of girls with such unusual grave goods discussed by Martin-Kilcher (2000, 65, table 7.1), three have writing equipment, and this includes our grave from North of Rome. The mid-third-century sarcophagus grave of an eight- to ten-year-old girl from Bonn contained a wooden box, gold jewellery, a mirror, six coins, glass and ceramic vessels and twenty-seven glass game pieces or counters; the writing equipment consists of an iron stylus, a silver tube possibly to hold pens and a knife (Haberey 1961). In Puglia (Italy), a tile grave dated to the first half of the first century AD contained the body of a young girl and again a range of miniature vessels and animals, ceramic and glass vessels as well as gold jewellery; the writing set consisted of a writing tablet and a bone box (Grassi and Bartoli 1993, 84–89, figs. 58–62).

INKWELLS FROM ADULT DOUBLE BURIALS AND FAMILY GROUPS

Inkwells can occur in graves containing two or more individuals, which are usually interpreted as representing family groups (see Table 9.1); however, we have to be wary of stereotypical assumptions such as 'husband and wife' or 'mother and child', especially if no detailed osteological analysis has been



10.3. Three individuals buried with writing equipment at Skopje (after Spasovska-Dimitrioska 1996, fig. 2).

carried out (Arnold 2007, 116). We have already noted women being buried with very young children; this includes a woman aged eighteen to twenty-five and possibly a doctor at Vindonissa (No. 213) and another from the same site who was again in her twenties (No. 397). A much older woman (forty to fifty years old) was buried with a juvenile at Günzenhausen; it is the juvenile who had an inkwell placed into the grave. Another woman (not aged) was cremated with a six-year-old child at Cologne, St. Severin V, 208 (Nos. 250–251) and buried with rich grave goods including a Medusa amulet and two possible inkwells. From the same site but of an earlier date is a cremation burial (No. 128; St. Severin II, 78) with an inkwell; this was disturbed but is interpreted as a female cremation, and possibly that of a woman and child (Päffgen 1992, 134).

An unusual possible inkwell (No. 123) comes from a late third to early fourth triple inhumation in Skopje, interpreted as the grave of parents and their son though, overall, this report is quite speculative (Figure 10.3; Spasovska-Dimitrioska 1996). The woman had a glass bracelet, two glass vessels and a coin of Lucius Verus (AD 161–169), while the male buried with her had

wooden writing tablets, iron styli and a coin of Diocletianus (AD 284–305). The second male appears to have been buried later, with a coin of Maximilian (AD 286–305), thirteen wooden writing tablets, an iron stylus and an inkwell. A burial discovered accidentally by workmen at Duklja possibly had multiple individuals in a grave marked by stone slabs, which also held an inkwell (No. 435) and twelve ceramic and glass vessels (Cermanović-Kuzmanović et al. 1975, 81). A grave at Budapest/Aquincum is of a mature male and female, with the writing equipment placed by her side (Bilkei 1980, 80, No. 90). A close relationship probably existed between the male Grave 8 (inkwell No. 37) at Nijmegen and the rich female grave 9 (inkwell No. 35), which are located in the in the same masonry enclosure, with the male predating the female grave (Koster 2013, 53–58).

CONCLUSION

There is considerable evidence for the education of both boys and girls, and literary attainments are mentioned or depicted on tombs of children as 'pathetic reminders of dignity achieved and promise cut short' (Kaster 1988, 27). This chapter has attempted to review how literacy may relate to the life course. In this we are hindered by the paucity of modern osteological data, which makes it difficult to assess the age of individuals buried with writing equipment. There is little point in calculating overall proportions, as an Empire-wide survey by its very nature will only yield biased and incomplete data, but we may note that Bilkei (1980; cf. 1983), in his survey of Pannonian material, records that three out of seventy inkwells come from children's graves and in Switzerland, of twenty-one graves with writing equipment, two were those of children (Schaltenbrandt Obrecht 2012, 42–46). My survey of inkwell graves shows that 13 of 125 graves were published as those of children or young adults. Given that in most cases we do not have any information even on the exact age of the child, and given the difficulties of sexing children pre-puberty, there is even less information on gender patterns. In only one case can we tentatively identify a young woman or girl. While attributions to boys made on the basis of crossbow brooches, belts and weapons may be convincing, other instances reflect modern assumptions rather than ancient practice and have to be viewed with caution. An important factor to consider is whether these objects represent aspirations or achievements; do they show that even young children wrote regularly or are they symbolic of what a child of this social status should have gone on to achieve? Objects such as belts and crossbow brooches that were buried with children, for example, at Colchester Butt Road (Crummy et al. 1993, 145) and Winchester Lankhills (Booth et al. 2010, 308), may allude to expectations the child did not live to fulfil rather than any official roles already occupied. In inscriptions 'children [...] are praised for their mature intellectual qualities and behaviour. They are portrayed as the persons they would have become, had they lived, and this made their loss the more distressing' (Hemelrijk 2004, 60). Another nuance of the same idea is expressed in a number of late antique images that show a son with insignia of power and titles (almost) equivalent to his father; these are interpreted as depicting 'honours without duties' given to the sons of the late Imperial elite (Warland 1994, 182).

ELEVEN

LITERACY, THE BODY AND ELITE IDENTITIES: WRITING AND STATUS

Graves with writing equipment often contain specific other objects, and here I will consider the association of inkwells with gaming equipment, medical instruments, items associated with grooming and bodily representation and feasting equipment to provide a more rounded consideration of the kinds of identities projected in these graves (cf. Fünfschilling 2012, 174, table 2). I will also consider professional identities, in particular the question of whether some of the burials are those of scribes and doctors.

GRAVES WITH SETS OF WRITING EQUIPMENT – PROFESSIONAL SCRIBES?

Groups of writing equipment are only rarely found in non-funerary contexts. Thus there is a possible aperture cover (No. 330) from Boudican destruction debris in London, which was found with a wooden writing tablet and an iron stylus; another aperture cover comes from a pit in Zurzach (No. 302) where it was found in an early first-century context with a stylus and knife. We have already discussed the votive deposit from Marktoberdorf, which contained a wax spatula and penknife as well as an inkwell (No. 419). By contrast, the importance of the funerary evidence lies in the fact that sets occur frequently; the combination of objects gives an insight into practice, and in some cases the presence of multiple objects of the same type or very comprehensive sets may point to more than casual writing. In such cases, the writing sets may

reference a specific profession or acted more generally as status symbols (e.g. Fünfschilling 2012, 174).

There are forty-nine graves that, in addition to one or more inkwells, contained other writing equipment. This consists of certain writing equipment such as wax spatulae and styli, but we will also consider objects of more ambiguous function such as knives, spoons and palettes. Here we will first review the types of writing equipment represented and then consider the grave assemblages as a whole. From Table 11.1 it is clear that wax spatulae and styli are the most frequently found other writing equipment. We have already noted the association between wax spatula and inkwells when discussing iconography in Chapter 8. 'It would seem that in burials, and also in wall paintings and burial reliefs from the Roman period, these two objects were intended to symbolise the art of writing – on the one hand with pen and ink and on the other on a wax tablet' (Koster 2013, 160). In three burials the identification of wax spatulae is not certain (Avenches, Regensburg, Salzburg); at Vagnari (No. 473) the wax spatula (and indeed other writing tools) were misidentified as leatherworking equipment (Small et al. 2007, 165–172). There are no spatulae with handles in the shape of a bust of Minerva (Feugère 1995a), but a double-ended instrument from Duklja (No. 434) was probably also for the application of wax (Feugère 1995a, 324–326, fig. 1 B1–C; Schaltenbrand Obrecht 2012, 82–88). In only two graves were multiple wax spatulae present: four in the exceptional grave at Brindisi, which also contained five inkwells, three rulers, dividers and a stylus as well as many other grave goods, and two at Duklja, which also had a bone ruler and a knife (Figure 11.1). Clearly one wax spatula was normally considered sufficient as part of even a luxurious or specialised writing kit.

Styli were necessary to write on wax tablets and were present in a large proportion of inkwell graves. At least twelve of these contain multiple styli, most commonly two or three styli, but two graves (Aquileia No. 106 and Nijmegen No. 105) contain five examples (Table 11.1). This is not the place to discuss their typology, but an unusual object from a possible doctor's grave at Cologne (No. 399) may be a rare stylus type (cf. Schaltenbrand Obrecht 2012, 72, fig. 67). Multiple styli are depicted as part of writing sets, and variations in thickness or grip were clearly necessary to those who wrote frequently and it is therefore not surprising to find sets of styli in our burial assemblages. Pens survive more rarely; one (Aquileia Nos. 105–106) is made from ivory, another (Trento No. 453) from bone. The example from Aquileia is unusual in having a hoof-shaped terminal (Figure 11.1); a small group of iron instruments (styli?) appears to be of similar shape (Aquileia No. 106, Berlingen No. 107 and Urbino No. 472). The set of five pens from Intercisa (No. 296) was preserved through burning, while the examples from Nijmegen (Nos. 35, 37) may have survived as a result of being near corroding objects. However, while reed pens

TABLE II.1. *Types of writing equipment associated with inkwells in graves*

	Wax spatula	Stylus	Writing tablet	Pen	Knife	Ruler	Spoon/ Spoon-probe	Palette	Other	Gender and Age	Context date
Alba No. 83					X		X Spoon		Cylinder and small tools	–	Second quarter of first century
Aquileia Nos. 105–6	X	X 5	X+ Ivory	X Ivory	X		X Spoon			–	–
Augst No. 442		?X								Female	Third to early fourth century
Avenches Nos. 392–393	?X									Votive offering associated with cremation of adult and child	ca. AD 120–130
Berlingen No. 107	X				X	X			Dividers	Young male	Early Flavian
Brindisi Nos. 184, 245–248	X4	X			X	X3			Dividers	Cremated remains not sexed; female on basis of grave goods	Mid-first century
Budapest No. 273		X								Mature male and female	–
Budapest No. 136		X	X+		X 2				Smoothing tool	18 years, not sexed; male on basis of grave goods	Middle of third century
Picenum No. 85						X				Female on basis of grave goods	Augustan
Cologne No. 252		X								–	Second quarter of second century
Cologne No. 101	X	X2			X					–	Early third century
Cologne No. 126	X				X 2				Sponge	–	Last third of second century
Cologne No. 69	X									–	Third century

	Wax spatula	Stylus	Writing tablet	Pen	Knife	Ruler	Spoon/ Spoon- probe	Palette	Other	Gender and Age	Context date
Cologne No. 100		X 2								–	Early third century?
Cologne No. 399		?X									Early third century?
Duklja No. 137	X2				X	X				–	Early third century
Duklja No. 434	X Double- ended									–	Second half of second – first half third century
Duklja No. 417	?X				?X					–	Second half of third century
Ergolding No. 260	X	X			X				Seal-box	Mature male	Last quarter of second century
Günzenhausen No. 67		X			X2					Juvenile	Late Trajanic
Intercisa No. 296				X5 Burnt					Wooden container	–	–
Intercisa No. 298		X	X						Leather case	Said to be male	–
Meerbusch-Ossum No. 141		X							Leather case	–	–
Krefeld-Gellep No. 102		X3			X					Female on basis of grave goods	After AD 215
Lank-Latum No. 295	X									–	Early third century
Ljubljana No. 267	X						X			–	–
London No. 330 Boudiccan destruction		X	X							-	AD 60/61–65
Macedonia No. 194		X							Stylus box	‘Boy’s grave’	–

(continued)

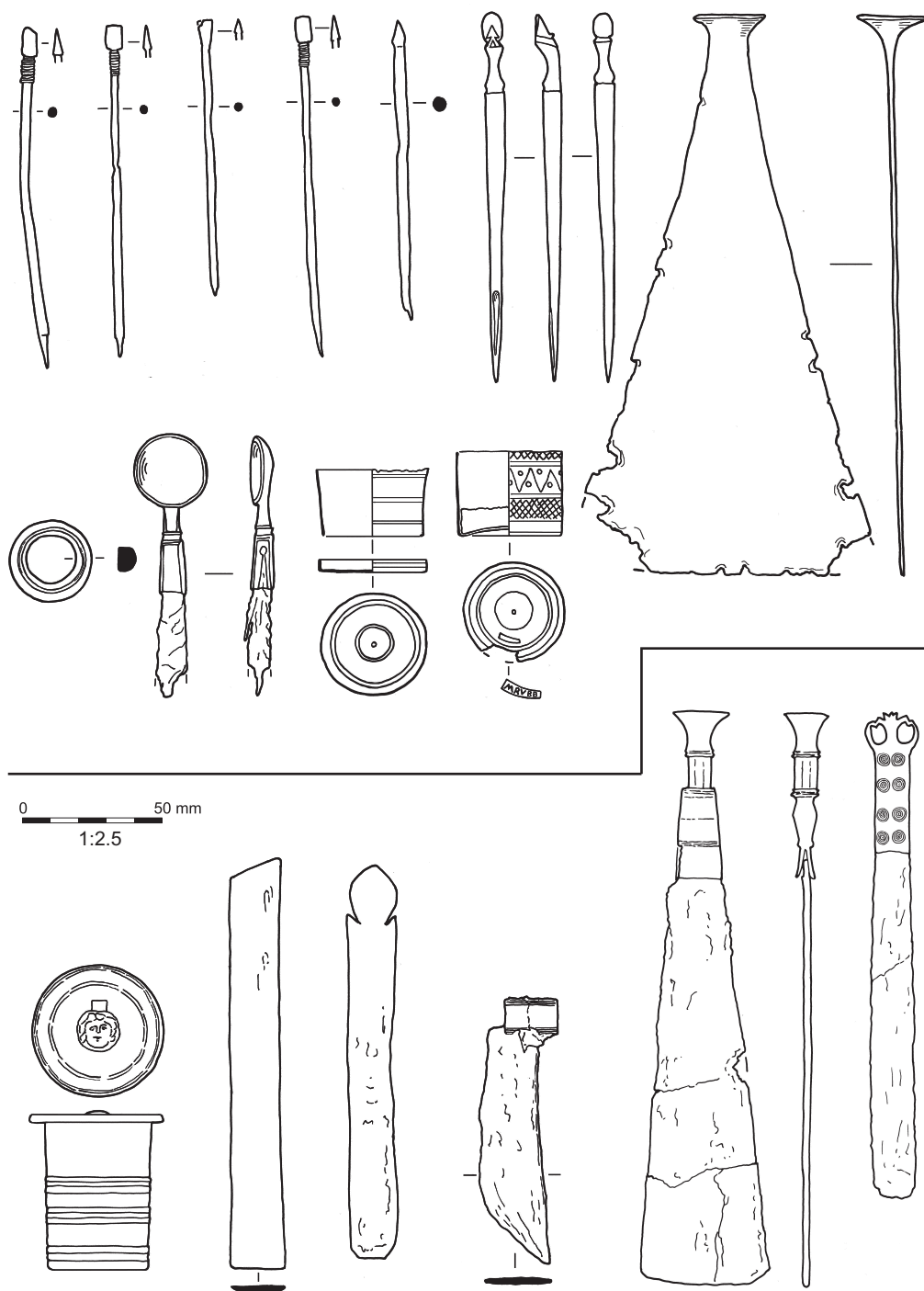
TABLE II.1 (*continued*)

	Wax spatula	Stylus	Writing tablet	Pen	Knife	Ruler	Spoon/ Spoon- probe	Palette	Other	Gender and Age	Context date
Marktoberdorf No. 419 <i>Votive deposit</i>	X				X					-	<i>Mid-third century</i>
Mérida No. 470		X					X	X		—	Mid-first century
Monte Carru di Alghero No. 490	X		X	X		X				Aged 10–11	First to second century
Nijmegen No. 332	X	X ₂			X					Female, 20–30 years	AD 80–100
Nijmegen No. 97	X	X ₃			X					Female, 20–30 years	AD 95–110
Nijmegen No. 37	X	X ₂		X	X					Male on basis of grave goods	AD 80–100
Nijmegen No. 35	X	X ₃		X ₂	X					Female on basis of grave goods	Early second century
Nijmegen No. 104	X	?X ₅								—	—
Nîmes No. 159		X	X+ Ivory								TPQ coin of Trajan
Regensburg No. 145	?X									—	Later Roman
Rome No. 452	X Bone	X ₃ Bone	X Ivory						Pumice stone	—	First third of second century
North of Rome No. 206			X Ivory							Girl on basis of grave goods	Early first century
Salzburg No. 133	?X					?X	X	X		Male inhumation, possibly doctor	Third century
Skopje No. 123		X+	X+							1 woman and 2 men	Late third to early fourth century
Szöny No. 282		X ₂					X		Container for styli	—	Late second to early third century

TABLE 11.1 (*continued*)

	Wax spatula	Stylus	Writing tablet	Pen	Knife	Ruler	Spoon/ Spoon- probe	Palette	Other	Gender and Age	Context date
Szőny No. 135		X2							Smoothing tool	Inhumation of child	–
Taraneš No. 162		X							‘Eraser’, ‘toothpick’	Male on basis of grave goods	First half of fourth century
Tiblisi No. 111		X								–	First century
Trento No. 453				X Bone						–	Mid-first to second century
Urbino No. 472				X Iron						Unsexed cremation	Third century
Vagnari No. 473	X					X				Adult male	Late second to early third century
Vindonissa No. 213									Tube container	Woman and child; ‘female doctor’	Middle of first century
Vörösmart No. 163									‘Rings for parchment’	Male on basis of grave goods, 11–13 years	Second half of fourth century
<i>Zurzach No. 302</i>		X Bone			X					–	<i>Early first century</i>

Note sites in italics are not funerary.



11.1. Sets of writing equipment in graves at Aquileia (after Božič and Feugère 2004, fig. 21) and Duklja (after Cermanović-Kuzmanović et al. 1975, fig. 21).

are underrepresented in the archaeological record, we have seen previously that inkwells were often filled ready for use when placed into the grave as ink residues survive in a surprising number of cases (e.g. No. 136 Aquincum, No. 81 Haltern, No. 266 Keszthely-Fenékpuszta, No. 141 Meerbusch-Ossum, Nos. 37 and 94 Nijmegen and No. 226 Rheinzabern; cf. Pfüffgen 1992, 252). It is therefore highly likely that pens were included in most inkwell graves.

Knives may well have been used to sharpen reed pens or to cut and prepare organic writing materials such as thin sheets of wood, papyrus or parchment. However, of the inkwell graves with knives, only one (from Berlingen) had the type of knife thought to have been a penknife (Figure 2.5 and Chapter 3; Božič and Feugère 2004, 37–39). Several (e.g. Cologne No. 126, Duklja and Krefeld Gellep) are folding knives, but the other knives are usually simple iron knives, with or without surviving bone handles. Knives in general are multi-purpose instruments, so with the exception of Berlingen, it is not certain that any of these knives were indeed used in the preparation of writing materials.

Bone rulers tend to occur in graves that have other sophisticated writing equipment such as dividers. Two chronological groups are noticeable: one in the middle of the first century (Berlingen, Brindisi, Picenum, also Monte Carru di Alghero) and another in the early third century (Duklja, Salzburg). However, the Salzburg example is of a variant form and not even certainly a ruler, suggesting that this object is more commonly a first-century find.

Spoon-probes such as those found at Ljubljana, Salzburg (where it was associated also with a stone palette) and Szőny No. 282 may have been for the preparation of ink, but may equally have served as cosmetic and medical instruments (discussed in more detail in a later section of this chapter). Small, round spoons such as the bone example from Alba (No. 83) and the silver spoon from Aquileia (No. 105–106) may have been for the measuring of valuable foodstuffs, such as salt and spices, or for the consumption of specialised foods such as snails and eggs (Eckardt 2014, 144). They may have been used to measure out dried ink, but that is obviously highly speculative, and they are too rare a find in inkwell graves to make that kind of association.

Rarer forms of writing equipment include dividers in the especially well-equipped graves from Berlingen and Brindisi, ‘smoothing tools’ at Budapest No. 136 and Szőny No. 135 (both could simply be rulers) and miraculously a sponge from Cologne No. 126 and a pumice stone, possibly for scraping or erasing papyri from Rome (No. 452). A seal-box from Ergolding may have been used to secure important official documents, but while usually associated with literacy, these small objects could also be employed to secure other valuables (e.g. Andrews 2012; Furger et al. 2009). Finally, in a number of instances the carrying cases of writing equipment survive; these can be made of leather (No. 298 Intercisa, Meerbusch-Ossum) or other organic materials (No. 296 Intercisa, Alba, Macedonia, Szőny No. 282).

In contrast to the metal instruments used to apply and write into the wax, the actual writing tablets are much rarer finds. In four cases the writing tablets are said to be made from ivory (Aquileia, Nîmes, Rome and North of Rome), which survives slightly better in the archaeological record than wooden examples (cf. Pearce 2004, 47–51; Speidel 1996).

To end this section, it should be acknowledged that in at least three cases (Alba, Vindonissa, Vörösmart) the identification of writing equipment other than the inkwell remains doubtful. Alba has an inkwell, a small knife with a bone handle, a bone spoon and a cylinder with other small tools and presents perhaps the likeliest of these three candidates. The female doctor's grave at Vindonissa had a possible tube container for pens, but it is possible that even the inkwell was reused as a container for medicines rather than for its original purpose. The two copper-alloy rings from the grave of a boy at Vörösmart are interpreted as holders for rolls of parchment (Filipović 2010, 25) but that is not certain.

Having discussed the types of writing equipment, it is worth considering these graves as a whole as well as the social and symbolic meaning of these specific grave goods. Their very inclusion probably represents pride in literacy, expressed as one aspect of elite identities in graves that also frequently include objects associated with grooming and feasting or drinking. Quite striking is the very occasional deposition of multiple examples of the same instruments (other than styli or pens, which frequently occur in numbers). Double inkwells (as found at Aquileia and Avenches) were clearly used for red and black ink and may hint at the writing of more official documents that required headings. It is harder to see why multiple spatulae were included (two in Duklja No. 137 and four in Brindisi) or why anyone would require five inkwells, as at Brindisi, other than possibly to accentuate wealth and the particular accomplishment of literacy. Only for Skopje (No. 123) has an identification as a professional scribe been suggested in the original publication (Spasovska-Dimitrioska 1996), but in fact a number of graves contain large numbers and often diverse types of writing equipment, perhaps hinting at professional identities. Simply counting numbers of writing equipment per grave identifies eight graves that have four or more different objects (Aquileia: 6; Berlingen: 4; Brindisi: 5; Budapest No. 136: 4; Ergolding: 4; Monte Carru di Alghero No. 490: 4; Nijmegen Nos. 35 and 37: 4). With the exception of Budapest No. 136 this appears to be a phenomenon of the first and second century; the geographic spread is wide. Of these eight, two (Brindisi: on basis of grave goods; Nijmegen 35: sexed) appear to be female; one (Monte Carru di Alghero) is of a child. It is entirely possible that some of these graves with multiple items of writing equipment represent the last resting place of professional scribes.

We have seen previously that the social status of scribes was ambivalent; the elite written sources frequently look down on upstart grammarians and

slave or freedmen scribes, but at the same time these individuals, who could be researchers in their own right and were often fluent in several languages, were highly valued (e.g. Jones 1949; Small 1997, 169–175). Rome's bureaucracy offered rich opportunities for upward mobility for notaries and other staff (Kaster 1988, 47–48). Another avenue for promotion was the role of scribe within the Roman army (Harris 1989, 218; Stauner 2004, 132–138). There were subtle but clearly very important internal hierarchies (Purcell 2001) and, in terms of self-representation, proud displays of their profession by *scribae* in funerary art (Wrede 1981). The same pride can now be shown to have been displayed in burials.

We have also already seen that modern assumptions about the age and gender of scribes do not necessarily hold true. There were female scribes who appear to have been drawn from the same social class as their male counterparts (i.e. slaves or freedwomen) and carried out much the same roles, though often working for upper-class women (Haines-Eitzem 1998, 634–640; Treggiari 1976, 77–78). As shown in Chapter 9, both male and female burials (sexed osteologically and attributed on the basis of grave goods) contain sets of writing equipment. Female graves include similar types of writing equipment as male or unsexed graves and can contain large numbers, as in Brindisi.

Chapter 10 highlighted that some children were literate; the role of copyist and 'low-level accountant' could be performed before the individual reached the age of fourteen, suggesting that training, perhaps in the form of apprenticeships, began well below that age (Johnson 2015, 146–147; Rawson 2003, 192–193). A good epigraphic example of a young specialist is the thirteen-year-old slave Melior, who died in Ostia in about AD 144; while there is debate about whether he was indeed a teacher of arithmetic or an accountant, it is clear that he was accomplished even at this young age (Bérenger 1999 vs. Kinsey 1979). In terms of assessing age, we are once more hampered by the lack of osteological information. I am excluding graves of a very young child and adult (Avenches and Vindonissa), where writing equipment was certainly associated with the adult woman, and also the find from Macedonia, where there is no evidence for the attribution of the grave to a boy. That leaves eight graves with age information and multiple pieces of writing equipment (Szőny, unsexed 'child' inhumation; Günzenhausen unsexed 'juvenile'; Monte Carru di Alghero, ten- to 11-year-old; Vörösmart, eleven- to thirteen-year-old with 'male' grave goods; North of Rome, girl on basis of grave goods; Berlingen, 'young' male; Budapest No. 136, eighteen-year-old male; Vagnari adult male).

Given the small numbers involved and the very wide spatial distribution, it is not possible to identify any regional patterns in the geographical distribution of graves with multiple items of writing equipment. Noticeable concentrations occur at Cologne and Nijmegen. Compared to Cologne, the Nijmegen group is consistent in the instruments provided: in addition to the inkwell, all

five have a small iron knife that was presumably used to sharpen reeds. Four have an iron spatula, which in three cases had corroded onto a bone ruler, and four have iron styli (Koster 2013). Similarly, there are no certain chronological trends, with sets of writing equipment occurring quite evenly throughout the Roman period (Table 11.1); however, the graves with extensive or multiple sets and including specialist instruments such as rulers and dividers appear to be mainly of first-century date.

GRAVES WITH GAME AND ACCOUNTING EQUIPMENT

Counters of various materials may relate to board games or accounting. Board games and games involving dice and astragali were hugely popular in the Roman world, even though they were sometimes frowned upon (Allason-Jones 2011, 233–236; Finkel 2007; Schädler 2007). Efforts were clearly made to deter cheating (e.g. Horn 1989) and playing for money was officially frowned upon; gambling in public was a serious vice (Purcell 2004, 180–188; Schädler 1996, 71). Despite some official disdain, in a funerary context, games were used as symbols of wealth and fortune, indicating that the owner had led a peaceful and carefree life, which would possibly continue after death. Another important symbolic element is that of virtue, namely bravery, but also (as demonstrated by the game playing habits of the emperor Augustus) *liberalitas*, *clementia* and *moderatio* (Schädler 1996, 72). Inscriptions such as those on later Roman marble gaming boards and the dice tower from Froitzheim in Germany (the Picts are defeated, the enemy is destroyed; play in safety) ‘allude to the bravery of the members of society and the virtues of the political system they were part of, which guaranteed peace and wealth as a pre-condition for people passing their time by playing games instead of struggling for daily survival’ (Schädler 2007, 374). The symbolic value of game boards in elite burials was probably also connected to ideas of strategic acumen, luck, bravery and fortune. Members of the elite learnt to plan for the hunt, warfare and politics through games of strategy (Schädler 2007). Board games spread into the provinces and beyond from the first century BC, and their transfer appears to be associated with other skills important for elite emulation, in particular literacy (Hall and Forsyth 2011, 1326–1327). Even in Rome, there is a link between literacy and game playing (Purcell 2004, 198–205).

Counters and writing equipment are found in the graves of girls and women, and we know from a range of sources that board games were not limited to boys and men. Thus both boys and girls are shown playing with nuts and knucklebones on sarcophagi such as the third century AD sarcophagus now in the Vatican Chiaramonti Museum and that of Lucius Aemelius Daphnus now in the British Museum (Harlow 2013, 326–327; Huskinson 1996, 16–17, cat. Nos. 1.12 and 1.37; cf. Amedick 1991, 165–166, pl. 94.1). A second-century

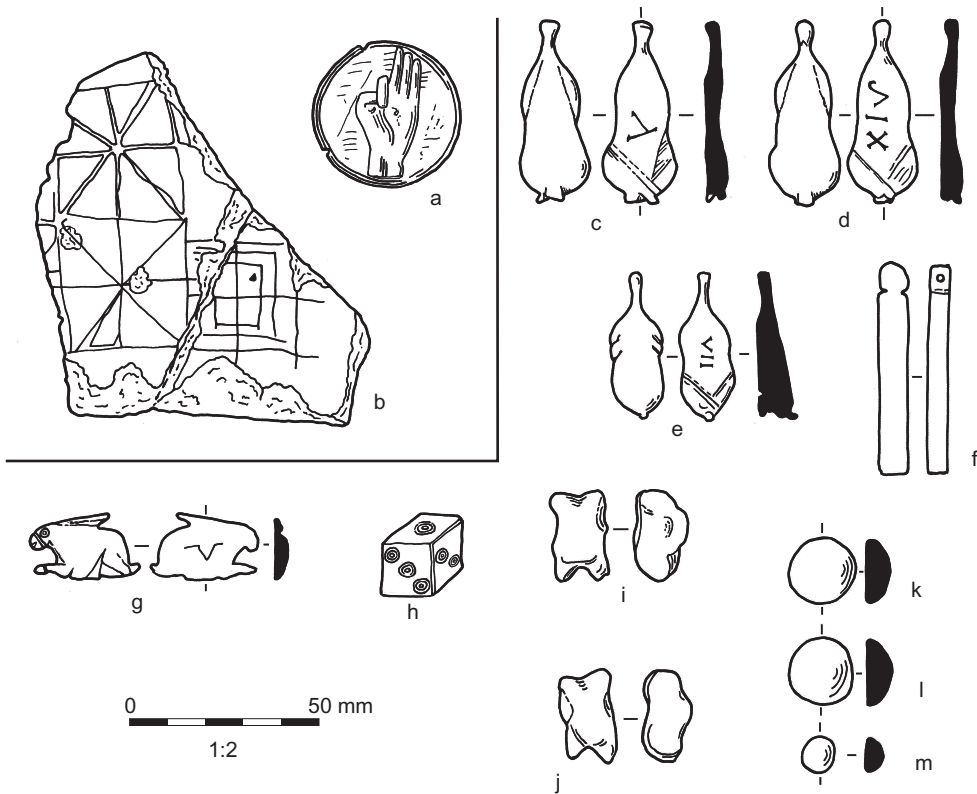
marble statue based on a Hellenistic original depicts a young girl playing with astragali (Blümel 1934, 10, pl. 23; Schädler 1996, fig. 2).

‘Also partly immune from the stigma of *alea* are those who have *otium* by nature, most notably through being female or old’ (Purcell 2004, 187). Thus Pliny (Epistles 7, 24, 5) mentions an elderly woman named Umidia Quadratilla playing board games and watching pantomimes, both morally suspect activities (Ash 2012, 445–449). There are also two sections in Ovid’s *Ars amatoria* that refer to women playing games. One (2, 206) advises the reader to lose to his woman to win her favours while the other, longer section (3, 354–356) describes a variety of games and states that ‘it is unseemly for a girl to know not how to play, by play love is often won’ (367–369). Ovid goes on to stress the importance of controlling one’s emotions when playing, warning against greed, anger and grief (3, 370–379).

A deposit of glass astragali and glass counters as well as writing equipment consisting of a copper-alloy inkwell and a stylus in an iron case found underneath some stone flooring in a second century BC administrative building in Israel has recently been interpreted as a votive offering by a young woman. The writing equipment is seen as relating to the completion of her schooling while the counters and astragali may hint at girlish games left behind on marriage (Erlich 2017).

We have seen earlier that literacy and numeracy are closely connected and that the keeping of accounts was a crucial skill. The abacus used in the Roman world can consist of small rivets moved in slots, but of course bone or glass counters on a board could also be used (Pliny, *Epistles* vi, 33.9; Frere and Tomlin 1991b, 105; Menninger 1992, 297–318; Schärli 2003, 519; Schärli 2006, 65–94). On a board, the value of each counter would depend on the line on which it was placed (with each line representing tens, hundreds, etc.). Counters could also be marked with numbers, letters or symbols, including the hand symbols used for Roman accounting (Mlasowsky 1991, 26). Of course, numbers or letters could also be used to mark gaming pieces and indeed gambling tokens, such as bone roundels from Ewell marked ‘I will gladly repay’ (Frere and Tomlin 1991b, 105). Bone objects in the shape of a trussed fowl or other animals such as fish and hares are thought to have functioned as lottery tickets, in particular as a playful way of assigning dining spaces in the triclinium (Figure 11.2c–e; Behrens 1940; Mikler 1997, 29; Mlasowsky 1991, 25–26). In practice it is clearly difficult to distinguish the purpose of glass or bone pieces, but in funerary contexts, sets in different colours and the presence of boards point to game playing, while very large numbers may point to accounting.

Turning to the archaeological evidence, the association of ‘game pieces’ and related objects with writing equipment other than metal inkwells occurs in a number of graves, for example, in the inhumation burial of a twelve-year-old, possibly female, individual at Köngen in Germany who was buried with



11.2. Game equipment from Brindisi (after Cocchiaro and Andreassi 1988, figs. 307 and 317) and Picenum (after Mercado 1974, fig. 41).

two iron styli in a leather pouch and more than 120 bone counters, as well as an iron knife, two copper-alloy rings, a pottery vessel and hobnailed shoes (Luik 1994). In his discussion of parallels Luik (1994, 371) notes other examples of writing equipment and counters in graves and highlights that many examples are those of male and female juveniles. We have already encountered the grave from Winchester containing styli, penknives and a double-ended spatula as well as eighteen counters; this is thought to be of a juvenile or woman (Biddle 1967). A woman was buried with counters, a ceramic inkwell, a seal-box and a rich array of copper-alloy vessels and other grave goods at Marpingen (Kolling 1967).

In our small data set of 125 inkwell graves, only 8 contained counters, dice and tokens (Table 11.2).

Most of the glass counters found in these graves are of the standard plano-convex form, made by letting molten glass set on sand (cf. Crummy et al. 2007, 186). There is usually a combination of white and black or blue counters in roughly equivalent numbers, which presumably relates to the kind of board game played with them (e.g. Mérida: 26/26; Picenum: 9/8+1; Rome: 37/

TABLE 11.2. *Graves with both metal inkwells and game/accounting equipment*

	Game pieces/counters	Tokens	Dice and astragali	Board	Gender and age	Date
Berlingen No. 107	—	—	2 dice	—	Male, young adult	Early Flavian
Brindisi Nos. 184, 245–248	1,121 glass (mainly black and white, but also blue with golden patina; 15 lenticular rather than plano- convex, 2 with decoration)256 stone/marble	15 bone (numbers, letters, figural designs),9 tesserae with letters, 5 bone and stone spheres	4 dice, 12 astragali	2 marble frags	Female on basis of grave goods	Mid-first century or end of first century BC to early first century AD
Picenum No. 85	8 black and 9 white, 1 small blue, all glass	1 hare and 3 birds, all with incised numerals	1 bone die, 2 bone astragali	—	Cremation not sexed or aged but female on basis of grave goods	Augustan
Günzenhausen No. 67	6 circular bone counters	—	—	—	Juvenile; double cremation with older woman	Late Trajanic
Elsenham No. 1	12 circular bone, 5 black and 1 white, glass	—	—	—	Not sexed; no gendered grave goods	TPQ of AD 145–148
Mérida No. 470	26 black and 26 white, glass	—	—	—	Not sexed; no gendered grave goods	Mid-first century
Rome No. 206	70 glass (37 white, 15 blue–green, 9 blue and 9 black)	—	—	—	Girl on basis of grave goods	Early first century
Taraneš No. 162	14 bone (pointed) counters and 2 bone containers	—	—	—	Male on basis of grave goods	First half fourth century

33). Numbers and materials are more mixed at Elsenham, but this is a metal-detected grave and some may have been lost. Bone counters of the normal circular form are known from Elsenham and Günzenhausen, while at Taraneš fourteen pointed bone objects and two bone containers are also interpreted as game equipment. Astragali only occur in two early graves in Italy, and dice only in those same graves and at Berlingen.

Clearly outstanding in terms of the number and variety of objects are the graves from Brindisi and Picenum. In the latter, the number of pieces is not unusually high, but there is a wide range of forms, including bone tokens in the shape of one hare and three trussed fowls, which may have been game pieces, tokens or lottery tickets (Behrens 1940; Mikler 1997, 29; Mlasowsky 1991, 25–26). If the comparison with pieces from Athens is correct, they may be associated with dining rather than playing games. At Brindisi, the sheer number of counters is truly exceptional, and there is a range of tokens as well, including examples with figural designs such as hand number symbols (Figure 11.2a; Mlasowsky 1991, 26). Game boards of wood do not normally survive, but here two fragments of marble boards were found, one near the feet and the other in a medieval pit nearby. It is hard to imagine that all these objects relate to game playing, and it is at least possible that some were for accounting purposes. On the other hand, the grave also has multiple sets of writing equipment, so this may be about a particular burial being especially richly equipped with multiples of various object types.

The sample is too small to draw specific conclusions, but we may note that there seems to be a slight bias towards the first century, and counters occur in both male and female graves.

PROFESSIONAL IDENTITIES: DOCTORS AND OTHER HEALERS

‘Medicine was a field in which written texts played an important role – as vehicles of knowledge and authority and as items of practical utility and social prestige’ (Flemming 2007, 262). One group of individuals that used writing equipment relatively frequently were therefore members of the medical profession. While there was no formal medical training with a centralised curriculum in the modern sense, doctors learnt their craft not just from practical and oral teaching, but also from medical texts (Hanson 2010; Nutton 2005). Medical libraries did exist but were rare, and Galen recommends that doctors acquire a private library of medical texts (Leven 2005, 154). Books of recipes and prescriptions contained pharmaceutical information that would have been useful to a skilled doctor throughout his or her working life (Cruse 2004, 66–67; Jackson 1988, 58). Monuments such as a fourth-century marble sarcophagus from Ostia (Italy) depicting a physician reading from a scroll and also proudly displaying his surgical instruments

further illustrate the link between medicine and literacy (Jackson 1988, fig. 17). On the other hand, some doctors and other healers could probably not read and write, especially in the provinces.

There were female doctors in the Roman world, and while it is often thought that the majority were concerned with treating women's diseases and childbirth, they also included surgeons and general physicians (Eichenauer 1980, 148–245; Flemming 2007, 257; Flemming 2013; Günther 1987, 100–109; Jackson 1988, 86–88; Künzl and Engelmann 1997; Künzl 2002, 92–99; Künzl 2013; Parker 1997, 137). As with male doctors, there was considerable variation in learning; literacy as a requirement for a good midwife (Soranus, *Gynecology* 1.3–1.4) may well have been an ideal, and levels of literacy and learning may have declined with distance from Rome in the western part of the Empire (Flemming 2013, 278; 2007, 261; Laes 2010). Female doctors differed significantly in terms of status, ranging from the very wealthy to slaves; the same status differences applied to male doctors (Kudlien 1986). There are no women amongst the very elite practitioners who produced noted medical texts or served the imperial court (Flemming 2007, 259; Flemming 2000; Parker 1997, 135). However, there is evidence that women created and transmitted medical recipes, while the case for women writing whole medical treatises is more complicated and contested (Flemming 2007, 268–276; Parker 2012). The inscription evidence for female doctors has been collected, and while numbers vary depending on the time frame and criteria (e.g. Flemming 2000, 383–391; Künzl 2013, 66–106; Parker 1997, 140–144), there are now good examples from Rome and Italy, but also from Gaul, Africa and Asia Minor, with about five per cent of physician inscriptions being those of women (Flemming 2007, 259, footnote 14; Künzl 2013, 112). These female doctors are often the wives, daughters or freedwomen of doctors as, for example, in the case of the freedwoman Naevia Clara in Rome, who is described as a physician and scholar and was commemorated with her husband, a physician and surgeon (Flemming 2000, 386, No. 9).

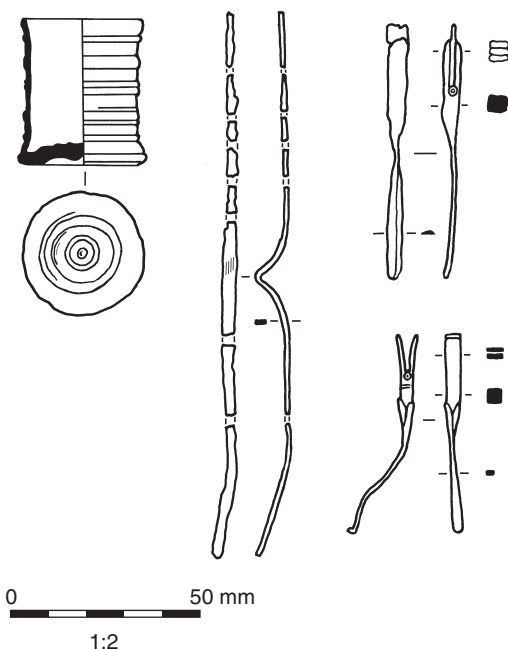
Across the Roman Empire, more than 100 graves of doctors have now been recorded, defined by the presence of unequivocal medical instruments such as scalpels and forceps (Künzl 1982; 2002, 32–47). Clearly there is some uncertainty over graves that contain instruments such as spoon-probes and stone palettes, which could have been used to prepare medicines or cosmetics (also discussed in the following section). Here I will focus only on doctors' graves that contain inkwells, of which seven possible examples have been identified. However, this is clearly an artificial division and there are several doctors' graves that contain styli (Božič 2001b, 30; Fünfschilling 2012, 173–174; Künzl 1982, figs. 13, 21 and 85; Schaltenbrandt Obrecht 2012, 44). The small sample is discussed in order of the certainty with which a medical character can be identified.

An inkwell of Type Boeselager (No. 104) with two horizontal protrusions, which presumably once held styli, comes from a rich grave in Nijmegen. This is an antiquarian find excavated in 1840, and the grave also contained medical instruments, a wooden box, a copper-alloy pyxis with chains, glass and ceramic vessels, iron shears, a wax spatula and five possible styli (Leemans 1842, 246; Künzl 1982, 93–96, figs. 74–75). The inkwell was found in a stone container variously interpreted as a cremation cist or a sarcophagus (von Boeselager 1989, 225); it was placed near a silver fitting but away from the box of medical instruments (Leemans 1842, pl. 1). This inkwell type is dated to the first half of the third century and was possibly made in Cologne, and most examples come from very wealthy burials in Lower Germany.

There is also a recently discovered grave with medical and writing equipment from Mérida/Emerita Augusta (Colour Plate 11.1). Grave 2, a cremation in a brick chamber, contained a stamped inkwell (No. 470), medical instruments (two tweezers or clamps, a probe, a scalpel and a cauterising iron), iron shears and what are described as medical or cosmetic objects (a ceramic vessel with spout, glass unguent and oil jars, a spoon-probe, a stone palette and four elongated iron ‘spoons’ on a D-shaped loop, which might well be strigils). Also found were an iron stylus and twenty-six black and twenty-six white game pieces, an illegible bronze coin, iron rods and iron fragments and a ceramic lamp with signs of use. The assemblage is dated to the middle of the first

century AD (Bejarano Osorio 2014, 15–16), and there is evidence that Emerita Augusta was a centre for healing, and for the training of doctors (Edmondson 2009; cf. Sabio González et al. 2014).

A female doctor was identified at Vindonissa. Grave 98–1 is that of a woman (aged approximately eighteen to twenty-five) buried with a three-year-old child; amongst the finds were two scalpels, tweezers and a container initially identified as a copper-alloy pyxis, leading to the suggestion that this is the burial of a female doctor or healer (Figure 11.3; No. 213; Hintermann 2000, 125–126). The container is in fact an inkwell rather than a box for creams or medications, although it could have seen secondary use in that way (Božič 2001b). Another fragmentary object is interpreted by Božič (2001b, 31) as tubes belonging to



11.3. Inkwell from a female doctor's grave at Vindonissa (after Hintermann 2000, pl. 161).

pens and by the excavator as part of a spatula probe (Hintermann 2000, 332). Also found were glass and ceramic vessels (including balsamaria), pig bones and plentiful botanical remains as well as two coins dating the assemblage to the mid-first century AD.

An inkwell of Type Noll (No. 53) now in the Deutsche Klingenmuseum Solingen (Germany) is said to come from a rich doctor's grave that also contained medical (a scalpel, hooks and a speculum) and cosmetic or medical instruments (tweezers, spoon-probes, ear-scoops, cylindrical elongated containers, two wooden boxes containing glass vessels), a glass flask, another wooden box, two styli, a distaff, a spoon, several prehistoric needles and another inkwell, which is thought to be early modern or possibly Byzantine. This assemblage was bought in the antiques trade, and an unpublished draft report by Künzl held at the museum suggests that this is not in fact a closed grave assemblage (Uhlemann 1964, 28–29; von Boeselager 1989, 233, footnote 50). However, many of the objects can be dated to the second century, and it is just possible that the core of the assemblage was in fact a doctor's grave.

An inkwell from Siculi in Croatia (No. 86) was found in 1888 with what are described as medical instruments, keys, toothpicks, ear-scoops and mirrors. The mirrors may point to this being a female grave, but the association of mirrors with women is not exclusive (Koster 2013, 249). Identification as a doctor's grave is by no means certain as the other objects are not illustrated (Bulić 1894, 165, fig. 5). It is also uncertain whether a stone sarcophagus grave from Cologne is really that of a doctor. This antiquarian discovery contained three copper-alloy 'medical instruments' (spatula/probe, hook and instrument of unknown function), a ceramic lamp, an inkwell of Type Biebrich, a stone palette (not illustrated), a stone object that probably represents a mould but is interpreted as a device for preparing pills, a ceramic and a Samian vessel, what was probably a pair of razors (drawn as one object) and a glass egg said to contain a green mass inside (Freudenberg 1857, 107–108, footnote 4, pl. IV,3; pers. comm. Marion Euskirchen). However, the instrument of unknown function may well be an elaborate stylus with a dolphin-shaped end, as known from Augst (Schaltenbrand Obrecht 2012, 72, fig. 67), while spoon-probes and stone palettes also have cosmetic functions. The razor would point to this being a male grave (Eckardt and Crummy 2008, 34–35; Garbsch 1975); it is of much later (late second to third century) date than the mid-first century inkwell of Type Biebrich, indicating either that the latter had been curated for some time or that this is in fact an antiquarian mélange of several assemblages.

A grave from Salzburg that is listed as a possible doctor's grave (Künzl 1982, 114–116, fig. 90.6) is discussed in the following section, as it contains no certain medical instruments; the spoon-probe and stone palette could also have cosmetic functions or be for the preparation of ink.

GRAVES WITH OBJECTS ASSOCIATED WITH GROOMING

Bodily presentation is key to personal identity as the body's surface can be adorned and styled in a multitude of ways determined by cultural conventions. Grooming practices play an important part in this process, both in the late Iron Age and the Roman period (Eckardt and Crummy 2008; Hill 1997; Swift 2012; Wyke 1994). Within the Roman context, care for the body (*cultus*) was the subject of considerable discourse, with classical authors defining appropriate behaviour for both male and female Roman citizens. Excessive grooming is used in the rhetorical and satirical sources as a device to characterise women as frivolous or of dubious sexual honour and men as effeminate and sexually passive (Wyke 1994). At the same time, an elaborate routine of bathing, dressing the hair and body and applying make-up and jewellery defined elite women and allowed them to demonstrate the wealth of their husbands; this is why scenes of adornment are depicted on tombstones and objects associated with the process placed into graves (Swift 2012; Wyke 1994, 141–143). Most of the graves discussed are from the provinces of the Empire, where in contrast to late Iron Age practice (when new grooming practices were adopted as expressions of elite local identities), these images and graves aim to present a specifically 'Roman' identity; some may even be the graves of women from elsewhere in the Empire (Swift 2012).

It can be difficult to define objects associated with grooming in the Roman world; while some (such as strigils and mirrors) clearly are, others may have had multiple functions. This applies in particular to small instruments such as spoon-probes and tweezers, which may have had medical as well as cosmetic uses (Eckardt and Crummy 2008, 39–40). Another possibility is that spoon-probes and stone palettes were occasionally used to prepare ink. In general, there is clearly overlap between 'doctor's graves', which often contain objects that could also have cosmetic function, and the graves discussed in this section. In the following, I will first consider each class of grooming implement found in inkwell graves in turn; I will then review both the overall evidence for grooming in these graves and attempt to characterise the assemblages as a whole (Table 11.3). The latter will focus on the question of gender and age patterns as well as the display of 'Romanised' grooming practices.

Strigils

Strigils are the most common object associated with grooming in inkwell graves. Strigils of iron or copper-alloy were used to scrape oil mixed with sand or another abrasive agent off the body, removing dirt and sweat (Eckardt and Crummy 2008, 37; Mallet 2009; Manning 1985, 79; Thullier 1989). Fifteen graves in this sample contained between one and four strigils, the most

TABLE II.3. *Objects associated with grooming in inkwell graves*

	Strigil	Oil flask and glass unguent bottle	Mirror	Spatula/ Spoon- probe	Palette	Jug and patera	Other	Gender and age	Date
Alba No. 83 Elegant early double	X2					Patera only, different Type		—	Second quarter of first century
Athens No. 84 Elegant early double	X2	X Copper- alloy						‘Boy’ but no evidence	‘Early imperial’
Berlingen No. 107 Stamped and decorated							Shears	Young male	Early Flavian
Brindisi Nos. 184, 245–248 Biebrich and misc.		X + Glass	Rect					Female on basis of grave goods	Mid-first century
Picenum No. 85 Elegant early double			Rect					Female on basis of grave goods	Augustan
Cologne No. 128 Dished lid			Rect					Female	Later first to early second century
Cologne No. 101 Boeselager	X2					Glass		—	Early third century
Cologne Nos. 250– 251 Misc.			Glass					Female	Mid-third century
Cologne No. 126 Elsdorf	X							—	Last third of second century
Cologne No. 221 Unassigned			Glass					Female on basis of grave goods	Later third to first half of fourth century
Cologne No. 222 Unassigned		X Glass	Lead frame					Female on basis of grave goods	Later third to first half of fourth century

(continued)

TABLE II.3 (*continued*)

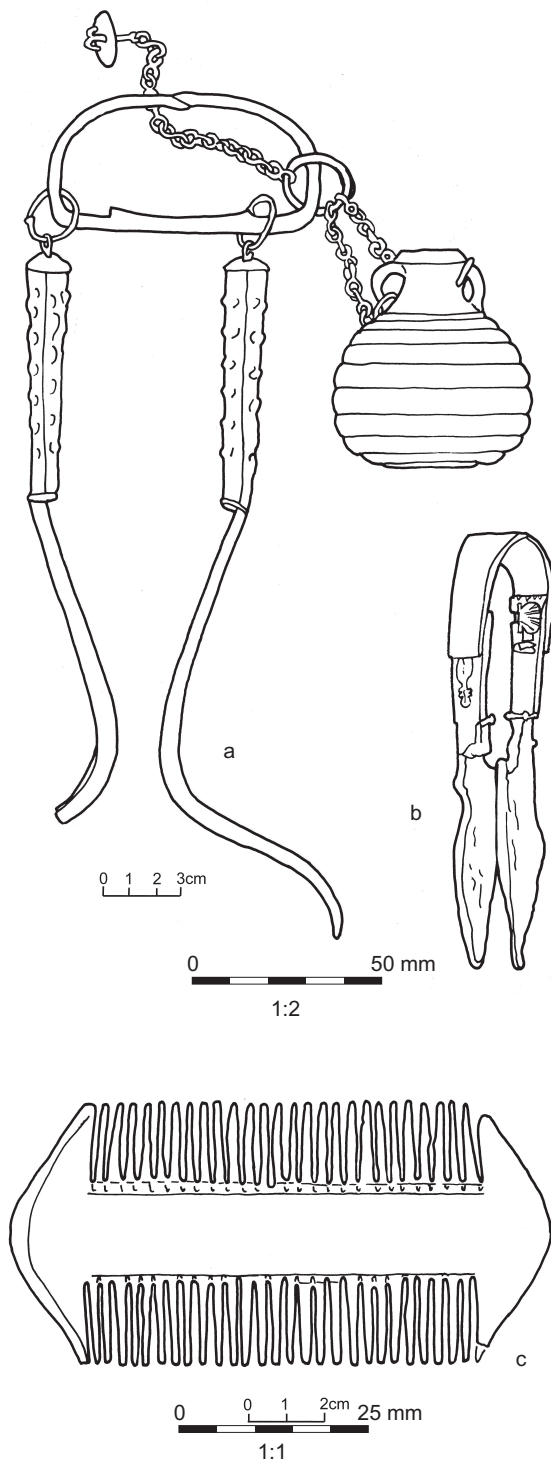
	Strigil	Oil flask and glass unguent bottle	Mirror	Spatula/ Spoon- probe	Palette	Jug and patera	Other	Gender and age	Date
Cologne No. 100 Boeselager	X2 HERC	X Copper- alloy			X			—	—
Cologne No. 99 Boeselager	X HERC	X Copper- alloy barrel		X4, incl. spatulae- probes	X			—	Terminus post quem: Nero
Cologne No. 399 Biebrich				X	X		Razor	—	First century inkwell, third century razor
Duklja No. 434 Misc.	X							—	First half of third century
Ergolding No. 260 Misc.	X 3					Possibly fragments?		Mature male	Last quarter of second century
Krefeld Gellep No. 102 Boeselager	X HERC		Circular					Female on basis of grave goods	After AD 215
Lank- Latum No. 295 Misc.	X2 HERC	X Copper- alloy				Glass		—	Early third century
Leverkusen No. 424 Lid							Comb	Female on basis of grave goods	—
Ljubljana No. 267 Misc.				X				—	—
Mérida No. 470 Stamped and decorated	?x4	X 2, Glass		X	X		Shears	—	Mid-first century
Nagylók No. 153 Rotating aperture						X		—	Second century?
Nijmegen No. 94 stamped and decorated	X							Male on basis of grave goods; aged 20+	AD 100–120

	Strigil	Oil flask and glass unguent bottle	Mirror	Spatula/ Spoon- probe	Palette	Jug and patera	Other	Gender and age	Date
Nijmegen No. 37 Noll	X4	X Enamelled and glass				X		Male on basis of grave goods	AD 80–100
Nijmegen No. 35 Noll			Rect			X		Female (aged 20–40)	AD 100–120
Nijmegen No. 104 Boeselager				X+			Shears	–	–
Nijmegen No. 332 Lid							Comb	Female	AD 80–100
Nîmes No. 159 Removable lid with chain		X Glass					Comb	–	TPQ coin of Trajan
North of Rome No. 206 Biebrich			X+ Silver		X+ Alabaster		Cosmetic vessels	Female on basis of grave goods, girl?	Early first century
Salzburg No. 133 Keyhole aperture				X	X			Male inhumation	Third century
Siculi No. 86 Elegant early double			X+				Ear-scoops	–	–
Szőny No. 282 Misc.	X2			X				–	Late second to early third century
Vindonissa No. 213 Biebrich				?X			Tweezers	Woman (aged 18–25)	Mid-first century
Wehringen No. 441 Unassigned	X3 HERC	X + Glass				X3, also wash basins	Marble mortar and pestle	Female cremation	ca. AD 200

common practice being the inclusion of a pair (see Table 11.3). A distinctive group in terms of typology are strigils with a handle decorated to resemble the club of Hercules (Figure 11.4a; Bónis 1968, 48, 55, fig. 26; Boon 1986, 159, footnote 14). These occur in a tight regional group at Cologne (Nos. 99 and 100), Lank Latum (No. 295) and Krefeld Gellep (No. 102), with the two graves at Lank Latum and Krefeld Gellep dated to the early third century. All of these graves with the exception of No. 295 Lank Latum have inkwells of Type Boeselager. Also from Cologne is a burial that contained two Hercules club strigils and a Samian inkwell (Päffgen 1992, 405–406, pl. 70). Finally, there are three such strigils from an exceptionally rich female grave at Wehringen (No. 441). An association between strigils and the patron of athletes is also evident in an example from the Caerleon baths, which is decorated with the labours of Hercules (Boon 1980; 1986, 157–166). The other strigils are plain examples or iron or copper-alloy, but there is a set from Szőny (No. 282) that has elaborate enamelled decoration on the handles. In a number of cases the D-shaped or circular loop from which strigils could be suspended is preserved (Figure 11.4a; e.g. Athens No. 84, Cologne No. 126, Duklja No. 434, Lank Latum No. 295, Nijmegen No. 37 and Szőny No. 282). On the same loop a small copper-alloy oil flask could be carried, as shown by an example from Pompeii (Riha 1986, fig. 1). Strigils were symbols of bathing as well athletic prowess, and as such they were used by women as well as men, although a male association is perhaps more marked (Kotera-Feyer 1993, 3–6, 118; cf. Mallet 2009, 125; Thulier 1989, 341). Of the twelve strigils found in Augst, one was from the female baths (Riha 1986, 23), and von Boeselager (1989, 236–238; 1993, 287) argues that a number of graves with strigils could be female. In this very small sample of inkwell graves with strigils only Ergolding (No. 260, mature male) is sexed and aged osteologically; two graves from Nijmegen (Nos. 37, 94) are thought to be male on the basis of the grave goods. By contrast, the grave from Krefeld Gellep is thought to be that of a female on the basis of the mirror and beads found in it (cf. Pirling and Siepen 2006, 423–424); Wehringen (No. 441) is not fully published but said to be a female grave (Nuber 2000, 166–168). On the whole strigils have been interpreted as symbols of ‘Romanised’ grooming; thus, Mallet (2009) sees strigils as symbols of Romanisation and status, reflecting newly acquired ‘know-how’ associated with exercise, the palaestra, *otium* and bodily presentation.

Oil Flasks and Unguent Vessels

A number of inkwell graves have glass or copper-alloy oil flasks or glass unguent bottles. The globular flasks contained oil or some ointment in solid form (Koster 1997, 82–84); their association with grooming is certain as they are often found with strigils. Indeed, in Athens (No. 84), Cologne (No. 100) and



11.4. Strigils from Lank Latum (after Pirling 1985, fig. 1), shears from Nijmegen (after Leemans 1842, pl. 3) and amber comb from Nijmegen (after Koster 2013, pl. 12.40).

Lank Latum (No. 295) the flask was still on a loop with strigils. Variants are the barrel-shaped flask from Cologne (No. 99) and the enamelled vessel from Nijmegen (No. 37). Glass *aryballoi* (bath flasks) characterised by globular bodies and short necks also occur, for example, at Mérida (No. 470); these vessels are also probably for oil (Eckardt and Crummy 2008, 37; Wardle 2008). In addition, a number of graves contain glass unguent bottles, which usually have a long narrow neck and are thought to have contained perfumes and scented oils, possibly for anointing the dead. These are attested in numerous graves (e.g. No. 84 Brindisi, No. 222 Cologne, No. 37 Nijmegen, No. 441 Wehringen) and also occur in inkwell graves with no other grooming equipment (e.g. No. 43 Trieste, No. 452 Rome, No. 162 Taraneş).

Mirrors

Mirrors are central to grooming, and in the British Iron Age they appear to be usually associated with women, although there is a grave of an unsexed individual buried with a mirror, sword and shield from the Isles of Scilly (Johns 2003). During the Roman period both men and women used mirrors (Eckardt and Crummy 2008, 30–32). However, it is generally thought that mirrors are strongly associated with women in the Roman world, based on the numerous examples of women holding mirrors depicted on tombstones and on the burial record; thus for Roman Britain, of nine burials with mirrors recorded by Philpott (1991, 355), seven are sexed female (cf. Swift 2012, 48–51, also table 5.4). At Krefeld-Gellep three out of seven mirror graves are thought to be female on the basis of other grave goods, but none are sexed (Pirling and Siepen 2006, 420–422); a few male mirror burials are, however, also known (Koster 2013, 249). Ten inkwell graves contained mirrors, of a variety of shapes and materials (see Table 11.3; Lloyd-Morgan 1981). The earliest examples are copper-alloy rectangular mirrors from mid-first-century graves in Italy (Brindisi and Picenum); rectangular mirrors also occur at Nijmegen and Cologne (No. 128) at later dates. Several silver mirrors are known from the exceptional grave North of Rome. A second group comprises mirrors that are dated to the third century; with the exception of a circular copper-alloy mirror from Krefeld-Gellep, these are glass (Cologne No. 221, Nos. 250–251), or survival is limited to a lead frame (Cologne No. 222). The date range reflects the overall use of mirrors, which become rare in the archaeological record after the third century AD (Lloyd-Morgan 1981, x). In this small dataset three graves (Cologne No. 128 and Nos. 250–251, Nijmegen No. 35) are sexed as those of females, the two from Cologne each apparently buried with a child. The remainder are thought to be female, but this is often on the very basis of the presence of a mirror, which obviously creates a circular argument. However, a female attribution may be supported by the inclusion of beads at Brindisi,

Cologne No. 221, Krefeld Gellep and North of Rome and hairpins at Cologne Nos. 221 and 222. The antiquarian find from Siculi (No. 86) is difficult to interpret as there are no gender-specific objects other than the mirror, and as the 'medical' instruments are not illustrated, no firm conclusions can be drawn.

Stone Palettes

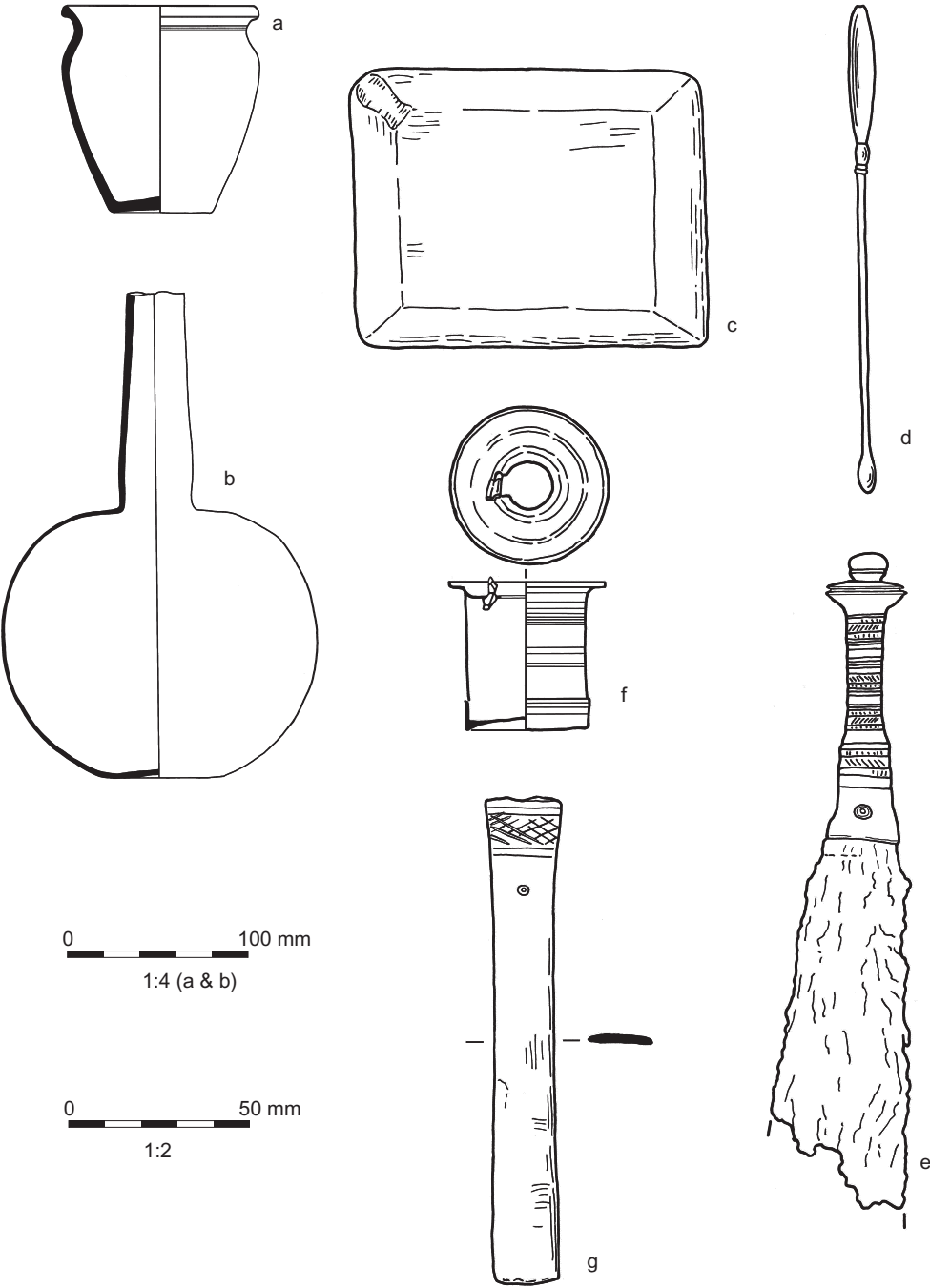
Stone palettes occur in six graves associated with inkwells, often associated with spoon-probes (Figure 11.5). The presence of spoon-probes and palettes may be taken to indicate the grave of a doctor, but this is only certain where they have been found with more positively identified medical or surgical objects. This is the case at Mérida (No. 470) where a highly polished green limestone stone palette was associated with a spoon-probe and medical instruments. Other 'grooming' objects included glass unguent and oil jars, four possible strigils and iron shears (Bejarano Osorio 2014, 15–16). The identification of function is more ambivalent for the Cologne Friesenplatz burial (No. 99), where a mixing palette of black-green porphyry is associated with a copper-alloy spoon-probe, two spatula-probes that could have had a medical function, an ear-scoop and two bone knife handles (Colour Plate 11.2; von Boeselager 1989, 225, figs. 7–8; von Boeselager 1993, 291–292, figs. 3–4; Künzl 1982, 91–93). Also found were a copper-alloy strigil and a small copper-alloy barrel for oil or perfume. A male third-century grave from Salzburg (No. 133) is described as possibly the grave of a doctor as it contained a palette, a copper-alloy spoon-probe and a knife, but all these objects could be associated with the preparation of medicines, cosmetics or indeed ink (Künzl 1982, 114–116, fig. 90.6).

A slate palette is known from the rich cremation grave 1897–103 from Cologne Luxemburger Strasse, which also contained a copper-alloy inkwell (No. 100), two styli, two strigils and a copper-alloy *aryballos* (von Boeselager 1989, 221–224 and 237, figs. 1–2; von Boeselager 1993, 290–291, fig. 1). Finally, alabaster cosmetic vessels and palettes are amongst the grave goods of a young girl buried North of Rome (Platz-Horster 1978, 184–195; Zahn 1950–1951, 281–282, fig. 5).

Identifications of material range from slate (Cologne No. 100), green limestone (Mérida, No. 470) to alabaster (North of Rome No. 206) and porphyry (Cologne No. 99). Stone palettes are clearly multi-functional objects and were used for the preparation of medicines and cosmetics; it is possible that they were also used to crush and mix ink.

Spoon-Probes

As with stone palettes, spoon-probes could have either a medical or a cosmetic function (Eckardt and Crummy 2008, 39–40). We have already encountered the



11.5. Grave with grooming and possible medical instruments from Salzburg (after Künzl 1982, fig. 90).

male inhumation from Salzburg (No. 133), which well illustrates the difficulty of distinguishing between doctors' graves and those that simply contained cosmetic instruments (Künzl 1982, 114–116, fig. 90.6). Similar considerations apply to the later first-century grave from Cologne Friesenplatz (No. 99), where a mixing palette was combined with a spoon-probe, two spatula-probes, an ear-scoop and two bone knife handles as well as a strigil and a small copper-alloy barrel for oil or perfume (von Boeselager 1989, 225, figs. 7–8; von Boeselager 1993, 291–292, figs. 3–4; Künzl 1982, 91–93). The presence of multiple probes and of the spatula might make a medical interpretation slightly more convincing. The now lost grave from Cologne (No. 399) was identified as a doctor's grave on the basis of a spatula-probe and a hook, while the third instrument is probably a stylus rather than a medical instrument. A possible doctor's grave at Siculi (No. 86) is said to contain ear-scoops as well as medical instruments.

Medical graves with spoon-probes are known at Mérida (No. 470) and Nijmegen (No. 105) and contained what appear to be both medical and cosmetic instruments (von Boeselager 1989, 225; Künzl 1982, 93–96, fig. 74; Paffgen 1986, 176; Leemans 1842). The assemblage from a supposed doctor's grave now in Solingen (No. 53) included spoon-probes but is from the antiquities market and probably not genuine. From a late second to early third century AD grave in Brigetio (No. 282) comes a spoon-probe found with two strigils with enamelled handles (Bilkei 1980, 79, pl. III, No. 69, fig. 11; Bónis 1968, 34, fig. 9.6). The grave is sometimes interpreted as that of a doctor on the basis of the spoon-probe but that is fanciful; rather, we are probably seeing once again elite display through objects associated with grooming and literacy. The same is probably true of the grave from Emona (No. 267) that contained a single spoon-probe, an iron wax spatula and glass vessels.

Jug and Patera Sets

A jug and handled dish (patera) were used for handwashing prior to a meal and before a sacrifice, and the function of these vessels is thus both related to cleanliness and to ritual (Koster 2013, 246; Nuber 1972). Such sets are included in both male and female graves and are characteristic of the provincial elite; most predate the end of the second century (Nuber 1972, 144–176; Koster 2013, 246). In the inkwell dataset they occur in seven graves. Two unsexed graves from Cologne (No. 101) and Lank Latum (No. 295) contained a glass set with applied colourful decoration while the remainder are of copper-alloy. Only fragments were found in a male grave at Ergolding (No. 260), while complete sets survive from probably a male (No. 37) and a female (No. 35) grave at Nijmegen. Three sets come from an exceptionally rich female grave at Wehringen (No. 441), while at Nagylók (No. 153) a jug and patera but no other grooming equipment were found. Two vessels at Plovdiv that I think

are pyxides rather than inkwells are included along with a copper-alloy jug and patera (No. 446). The patera in an inkwell grave from Alba (No. 83) is of a different type and, as there is no jug, the vessel may relate to food preparation rather than handwashing.

Other Grooming Objects

Copper-alloy and iron shears occur in the Iron Age and Roman period; smaller examples are usually assumed to be for the cutting of hair while some larger shears were used for the shearing of sheep and cutting of cloth (Eckardt and Crummy 2008, 35–36, fig. 9, with further references; Manning 1985, 34–35). Shears in both periods were included in the graves of both men and women. Ellen Swift (2017, 56–101 and pers. comm.) argues that the dimensions of many Iron Age shears are too large to be practical for cutting hair and that they may have been used for leather working. When associated with writing equipment, they may have been used to cut parchments. At Hawara (Egypt), the grave of a girl contained a wooden tablet, painted on one side with a draped, seated male holding a pair of shears, with a cupboard containing scrolls behind him. Flinders Petrie (1911, 20, pl. XIV) interprets this as showing a ‘tailor of literary tastes’, but of course it could point to the use of shears when producing scrolls (pers. comm. Ellen Swift). An association with writing equipment is also suggested by a Tiberian female grave from Badenheim (Germany) which contained a wax spatula, stylus and knife as well as shears; no grooming equipment was found and the shears were lying directly above the writing set (Böhme-Schönberger 2010). There are only three inkwell graves with shears. The rich early Flavian tumulus grave of a young male at Berlingen contained a pair of iron shears measuring 19.6 cm (Roosens and Lux 1973, 31, fig. 20). The shears were located with the other writing equipment in the north-west corner of the grave, so it may be possible that they were required for the cutting of papyrus or parchment; this could be supported by their shape and size, especially the curving back of the blade points (pers. comm. Ellen Swift). At Nijmegen a sarcophagus contained an inkwell of Boeselager Type and medical or cosmetic instruments as well as iron shears (Künzl 1982, 93–96, fig. 74; Päffgen 1986, 176; von Boeselager 1989, 225). The shears have an unusual handle, but no details are available in the antiquarian report (Figure 11.4b). At Mérida, a doctor’s grave had a range of ‘cosmetic’ objects as well as shears (Colour Plate 11.1; Bejarano Osorio 2014, 15–16). While the exact use of shears remains unknown, and use both for grooming and for preparing writing materials is possible, it is interesting that two out of three examples here come from doctor’s graves.

Bone and antler combs were used both for the removal of lice and for styling and occur in a variety of shapes; in the later Roman period they are strongly associated with women (Eckardt and Crummy 2008, 32–34; Jones

2013, 62). Three combs occur in inkwell graves (No. 424 Leverkusen, No. 332 Nijmegen, No. 159 Nîmes). Unusually, the comb from Grave 1 at Nijmegen is made from amber (Figure 11.4c); this grave is osteologically sexed and also contained other 'female' artefacts such as an amber distaff, while the one from Leverkusen is thought to be female, presumably on the basis of the beads, brooch and possibly the comb itself.

A number of miscellaneous objects may also relate to bodily presentation. A razor comes from an antiquarian discovery at Cologne, interpreted as a doctor's grave (No. 399). It is of a type dated to the late second to early third century and thus much later than the Biebrich inkwell with which it was found; its presence might indicate that this is a male grave, or that the razor was used for hair removal during medical procedures (Eckardt and Crummy 2008, 34–35; Garbsch 1975). Small instruments such as an ear-scoop at Siculi (No. 86) and tweezers at Vindonissa (No. 213) could be for cosmetic purposes, but both these graves also contained medical instruments.

A number of inkwell graves contain spoons of bone (e.g. No. 83 Alba, inscribed with the letters VP), copper-alloy (No. 422 Krefeld Gellep) and silver (No. 69 Cologne, Nos. 105–106 Aquileia, No. 162 Taraneš and No. 451 Xanten). The examples from Alba and Aquileia have small, round bowls and long, pointed handles; it has long been thought that this spoon type was designed to eat boiled eggs while the tip may have been used to extract snails from their shell, but such spoons could also have been used to measure small quantities of valuable materials such as medicines, cosmetics or spices (Eckardt 2014, 144). In this context, ink might be another possibility. The other spoons have oval- or pear-shape bowls and long handles and are made of precious metal; this somewhat later type is frequently found in burials and hoards and represents high-status dining equipment (Johns 2010, 97–132; Riha and Stern 1982; Swift 2014).

Cosmetic vessels are attested at Rome (No. 206) and a marble pestle and mortar at Wehringen (No. 441). Pumice stone is used today to remove dry skin, and as such a rare survival from a rich grave in Rome (No. 452) could be thought to be for grooming. However, as we have seen, pumice was used in antiquity for erasing ink from papyri, and as this grave contained much writing equipment, this seems the more likely function (Dickey 2012–2015 II, 50).

In conclusion, thirty-four graves contained grooming equipment of some kind, highlighting that the presentation of a well-groomed body was an important aspect of the identities portrayed by or for those buried with writing equipment. As has been argued previously, activities such as bathing and exercise fulfil much the same function in terms of expressing a cultured persona and cultural know-how as the display of writing equipment. These are all relatively high-status graves, often containing more than the local average in terms of pottery and glass vessels. It is obviously difficult to identify patterns

across such a large area with only so few examples, but it may be worth noting the following trends. In terms of chronology, grooming equipment occurs in inkwell graves from the Augustan period to the later third or the first half of the fourth century. The practice is clearly quite widespread, but there are noticeable regional concentrations in Cologne (and nearby Lank Latum and Krefeld Gellep) and in Nijmegen. Interestingly, the finds from Cologne cover a much wider date range than the tight and related group from Nijmegen.

In terms of age and gender, the following observations can be made: sixteen inkwell graves with grooming equipment are unsexed; six (Cologne No. 128, Cologne Nos. 250–251, Vindonissa No. 213, Nijmegen Nos. 35 and 332, Wehringen No. 441) were sexed as female, and in the first three cases the remains of a child were also found. A further three are osteologically identified as male (Berlingen No. 107, Ergolding No. 260 and Salzburg No. 133); interestingly, this includes both a young male (Berlingen) and a mature individual (Ergolding). Two further graves are thought to be male on the basis of grave goods (Nijmegen Nos. 37 and 94) while six are thought to be those of women (Brindisi No. 184, Picenum No. 85, Cologne Nos. 221 and 222, Krefeld Gellep No. 102, North of Rome No. 206). As highlighted, there is obviously a danger of a circular argument, as grooming equipment is often assumed to be associated more strongly with women, but mirrors and toilet instruments can in fact occur with men. On the other hand, apart from Picenum, all these graves contain objects usually strongly associated with women (e.g. bead necklaces and hairpins). It could thus be concluded that the combination of inkwells and grooming equipment is more common in female graves but that both men and women used these objects and could be buried with them. Grooming equipment appears to relate to ‘Romanised’ grooming practices amongst high-status groups (Mallet 2009; Swift 2012).

CONCLUSION

Where inkwells and other items of writing equipment are found in graves, they are often associated with high-status grave goods. These can be truly exotic objects such as the thirteen carved amber objects possibly imported from Aquileia in Nijmegen Burial 1 (No. 332) or the crystal and alabaster vessels and palettes and amber and crystal amulets from North of Rome (No. 206). Exceptional status may also be expressed by gold diadems, as in the same female grave near Rome. Two graves (No. 153 Nagylók and No. 35, Grave 9 Nijmegen) contain folding chairs. These are usually interpreted as symbols of official power and authority, but depending on the shape of the legs these multi-functional, easily transportable chairs can be seen generally as high-status objects and as symbols of dignity for both men and women (Koster 2013, 252–255; Mráv 2013).

Another noticeable find in inkwell graves is lighting equipment, in particular ceramic oil lamps (e.g. Alba No. 83, Berlingen No. 107, Carnuntum No. 88, Cologne Nos. 128 and 399, Karmacs No. 175, Mérida No. 470, Nida No. 108, Nijmegen Nos. 94 and 332, North of Rome No. 206, Trieste No. 43). Open lamps occur in copper-alloy (Nijmegen Nos. 35 and 37) and iron (Elsenham No. 1, Nijmegen No. 94), and a copper-alloy lamp and stand are known from Nîmes (No. 159). Copper-alloy candleholders were found in very similar graves in Cologne (No. 100) and Krefeld Gellep (No. 102). Presumably the inclusion of lighting equipment in these graves (and indeed in hoards such as Detzem No. 253) points to writing taking place in the evening.

Graves with inkwells are often also distinguished from others in the same cemetery in terms of burial rite, with inhumations or cremations placed into tile or stone cists (e.g. Nos. 99–101 Cologne, No. 162 Taraneš), stone sarcophagi (e.g. No. 118 Assos, Nos. 221–222 and 399 Cologne) and barrows (e.g. No. 107 Berlingen, No. 260 Ergolding, No. 441 Inota, No. 138 Isaccea, No. 441 Wehringen).

The association of writing with grooming, feasting and more rarely game playing is relatively consistent and is usually argued to represent the provincial elite expressing aspects of their wealth and status (von Boeselager 1989, 238–239; Fünfschilling 2012, 168–175). A slightly more nuanced reading of this evidence can be made (cf. Pearce 2013). In this chapter, I have reviewed some of the most common artefact groups deposited in inkwell graves to explore their implications in terms of gender and age and in terms of the social and cultural practices they relate to. It is important to consider the whole writing set deposited in a grave, as this provides a rare insight into ancient writing practice. We may take graves such as those at Nijmegen containing an inkwell, a wax spatula and styli (as well as now lost organic remains such as writing tablets and pens) as the norm; the key here is that equipment for both writing techniques is present. A number of graves clearly contain much more elaborate sets. At Brindisi we see both specialised tools (dividers, folding ruler) and multiplication (five inkwells, four spatula, hundreds of game/accountancy pieces). Specialised tools were also found at Berlingen and Aquileia, and it is quite possible that writing was an important aspect of these individuals' professions. Whole sets rather than individual objects are found in women's graves, and it seems unlikely to me that they had a purely symbolic function; rather, I would argue that they indicate that these were women for whom writing was an important and routine practice.

We have also discussed a number of graves that contained both writing equipment and glass, bone or stone counters. While such objects are usually considered to be gaming pieces, some, such as the unusual bone objects shaped like a hare or trussed fowl, may have been lottery tokens. However, counters could also be used to record numbers and amounts and thus represent either

cash exchanges associated with a game or actual accounting (Schaltenbrandt Obrecht 2012, 37–38, 44). In the latter case, they relate not to leisure but to numeracy, a skill closely related to that of literacy. Again, some of these graves (e.g. Brindisi) are those of women.

So-called doctor's graves, distinguished by the presence of surgical tools, are quite rare across the Roman Empire, and only a small number contained writing equipment. They have a wide geographical spread and date from the first to possibly the third century AD. In some cases it may be argued that an inkwell was reused as a container for unguents or medicines, for example, in the grave at Vindonissa, where the Type Biebrich inkwell was found without its original aperture cover (No. 213); similarly, it has been suggested that inkwells of Type Boeselager are in fact just such containers (pers. comm. Marion Euskirchen). It is nevertheless clear from other evidence, such as the written sources and objects such as oculist stamps, that literacy was important for medical professionals, and both the epigraphic and the burial evidence shows that these practitioners included women. There is clearly an overlap between medical and cosmetic practices, especially when we consider artefacts such as spoon-probes and stone palettes. In general, objects associated with practices of bodily presentation such as mirrors and strigils occur frequently in high-status graves.

Overall, very similar practices relating to grooming, feasting, drinking and writing are represented in both male and female graves; a good example are Nijmegen graves 8 (male, late Flavian) and 9 (female, early Trajanic; Koster 2013). It is clear from this survey that such graves occur both in Italy and the provinces; in both regions we see a concern with status and with very particular practices. In provincial contexts such as Nijmegen, the burials have been interpreted as those of members of the local Batavian elite; these men and women were familiar with the material culture and social practices of the Roman world, but the wooden burial chambers and the overall burial rite relate to native traditions (Koster 2013, 268–272). Koster sees these individuals as members of the municipal elite, with the men serving in the military and with the cultural and political alliance with Rome represented by objects such as a rock crystal ring with a Trajanic bust in female Grave 9, which she interprets as a diplomatic gift or a symbol of loyalty to the emperor (Koster 2013, 259). Similar arguments have been made about rich graves in regions such as Pannonia, which combine mediated local traditions such as the inclusion of weapons, horses and carts with objects that are associated with new practices and possibly with official roles in the provincial or military administration such as writing equipment (Mráv 2013, 119–120; Mráv 2006, 53–64, table 1). Also in Pannonia, new forms of grooming equipment such as strigils and oil flasks are argued to be embodied representations of *Romanitas* in that they represent the acceptance and mastery of

new ways of presenting the body (cf. Mráv 2013, 128–129). Taking the burial assemblages as a whole and following Pearce (2013), I would argue that artefacts placed in inkwell graves allude to and evoke the social practices through which identities were created in a given society. This chapter has shown that artefacts associated with education, bathing, dining and appropriate leisure broadly relate to the adoption and subsequent modification and development of new lifestyles and practices.

TWELVE

CONCLUSION: WRITING EMPIRE THROUGH MATERIAL CULTURE

This book has highlighted the importance of literacy to the construction of social identity. Detailed, contextual analysis of a form of writing equipment that was previously almost completely neglected has brought to light new information on the relationship between literacy and age, gender and professional identities in the Roman Empire. The results challenge previous assumptions about literacy being essentially limited to elite males and the army and highlight the potential of an approach that systematically analyses the rich artefactual information available for the period.

Literacy is a central aspect of Roman culture, but it is important to stay alive to the fundamental differences between the ancient and modern world, despite the many superficial similarities. We should avoid graphocentrism in order not to overemphasise writing at the expense of other factors, with orality and memory being two especially important ones. ‘Whether the object was to sway the emperor or the illiterate masses, speech, not writing, was the essential skill to master in order to make friends and influence people in the Roman empire’ (Woolf 2000, 897). Nevertheless, it is possible to argue for a literate mentality, where literacy shaped the lives of even those who could not read or write. All the existing research on the topic also makes it clear that it is more helpful to think of literacies as multiple practices rather than a single issue, let alone one that can be measured. Instead, we should consider literacies as dynamic, in that the role and importance of such skills changed over time

and across space. It is also helpful to distinguish between elite literacy, skilled workers competent in functional literacy and those just about able to read simple inscriptions; in other words, the term describes practices ranging from a very basic understanding of simple visual codes on buildings or coins to detailed comprehension of complicated texts, and from copying to composition. There is also an often neglected link with other skills, in particular numeracy. Much recent work explores the relationship of literacies to power, both in the sense of ‘power over’ and ‘power to’; thus, while inscriptions and law codes can be seen as oppressive tools, the ability to read and write can also be transformative, for example, by enabling progression within the Roman bureaucracy or by patronage as exercised through private letters (Bowman and Woolf 1994; Moreland 2006). While much is known about who read and wrote from the literary sources, and while we can discern substantive information about how texts were produced, distributed and consumed, I would argue that there has been an insufficient engagement with the physical practice of writing. This can take the form of considering how materials and artefact design might have shaped ancient practice (e.g. Haas 1996; Piquete and Whitehouse 2013; Swift 2017). In this book, I have attempted to consider one form of writing equipment in detail, to offer a contextual exploration of how it was used through time and across the Empire. The emphasis is on context and practice, and on a close engagement with the material, size and decoration of these small and previously neglected objects. In this, I was influenced by the idea that artefacts can prompt or constrain behaviour and thus perpetuate but also challenge cultural practices (cf. Swift 2014, 204). Writing equipment is not simply practical and its form is not self-evident or rational; rather, it allows users to display cultural know-how and thereby status, and its use has a specific bodily and experiential basis.

Chapter 2 considered writing practices in the ancient world from a practical perspective, by introducing the various implements employed to write on wood, wax and lead. Obviously, the survival of some, such as reed pens or wooden tablets is influenced by soil and burial factors, while others, such as specialised penknives or wax spatulae, are not always recognised in the original reports. For yet others, in particular seal-boxes, the distribution of which has long been seen as a proxy for literacy, an exclusive association with written documents as opposed to valuables cannot be demonstrated. Writing sets found in burials generally contained the tools required for writing both in ink and on wax; clearly, these objects were used together and also symbolically expressed competence in the skill of writing. Chapter 3 considered writing implements not simply as tools, but as a culturally constructed technology, and asked where and how writing implements were used during the Roman period. This includes attitudes to handwriting, different postures for writing

and note-taking, handedness and details of practice such as the observation by Quintilian that dipping the pen into ink interrupts the flow of thought.

Chapter 4 began the more detailed engagement with a specific dataset by considering the various materials from which inkwells could be made and the decorative techniques such as inlay and Corinthian bronze that were employed. There is no direct production evidence in the form of unfinished pieces or excavated workshops but some producers were probably located in northern Italy and Gallia Belgica on the basis of the distribution evidence. A very small number of inkwells bear makers' stamps, with Longinus Socrates the most prolific of them. Interestingly, he produced inkwells of different type, size and decoration, perhaps suggesting a specialised workshop. Neither he nor the other individuals named occur commonly on other metal vessels, perhaps again hinting that, in at least some parts of the Empire, production was not carried out by general metal smiths. Of course the opposite is probably true for some of the very simple copper-alloy inkwells, which could have been produced by any metal workshop.

No corpus of a body of archaeological material as dispersed as this can claim to be complete, but of 490 objects recorded from published and unpublished sources from across the Roman Empire, at least 440 are thought to be inkwells. These are listed in an online catalogue (<https://dx.doi.org/10.5284/1039969>), and their typology and chronology are discussed in Chapter 5. While there were some very clearly defined types (e.g. Type Biebrich), there are many others that can only be loosely grouped. The typological exercise also helped distinguish inkwells from some of the other small copper-alloy objects with which they are commonly confused, in particular pyxides and lantern burners. Enamelled vessels of Type Johns are thought to have been containers for valuable materials such as incense rather than inkwells. Inkwells occur from the very early first century to the fourth century AD, but context analysis of deposition dates shows a marked peak in the first century. Some of the earliest graves are possibly those of women. It is likely that the increase in the production, use and deposition of specialised writing equipment relates to the huge cultural and social changes at the time of the late Republic and early Empire, as Rome became Hellenised and ideas of learning and education changed significantly (Hemelrijk 2004, 92–95).

Chapter 6 explored the design affordances of inkwells in terms of ancient practice. Thus ring handles, which occur on early inkwell types, may have been used to attach other writing equipment or to carry the inkwells themselves. The same function is fulfilled in later types by chains fitted to the lid. A small number of double inkwells have been found, mainly dating to the early and mid-first century AD; these were filled with red and black ink respectively and may represent specialised equipment for individuals writing in an official function or writing extended texts, as red ink was employed for headings.

An analysis of estimated volumes was carried out, which showed that, while copper-alloy inkwells could have contained between 21 and 59 ml of ink, Samian inkwells are significantly larger. In terms of ancient practice, this may indicate communal use by scribes for the latter or perhaps the storage of ink, which was then decanted.

The spatial distribution of inkwells reflects not the spread of literacy but excavation and publication levels and, of course, the peculiar biases created by research traditions, language skills and personal contacts. Thus the corpus is much better for Germany and France than, for example, Greece; previous publications of writing equipment from a site or region can hugely increase its apparent significance. Chapter 7 therefore only mapped selected types, to illustrate those with very wide distributions (e.g. Type Noll), and those that are clearly the product of a single workshop that only ever traded across a small area (e.g. Type Boeselager in the Rhineland).

The work on the typology, chronology and distribution of inkwells acted as the basis for one of the key aims of the research, which was to explore the cultural milieu in which metal inkwells were used. This was achieved through a contextual analysis on two levels. First, we can systematically record on which sorts of sites from across the Roman Empire inkwells have been found. This information is available for most finds, with the exception of those from the antiquities trade and some museums. It shows a strong bias towards urban and also military sites, with few examples recorded from smaller, rural sites. While social distribution analysis as a method works well on a regional or even province-wide level, it is perhaps less useful when studying data from across the Empire, which as we have seen is so strongly shaped by publication biases. More productive for this project was an analysis of the second context level, which focuses on the type of depositional context an inkwell was recovered from. Such information is not available for almost half of the recorded inkwells, but where it survives, it can provide interesting insights. Thus, on some military sites inkwells occur in exactly the kinds of official buildings we would expect them in and a small number of finds from shipwrecks and from sites such as the Magdalensberg highlight the importance of literacy for trade. Inkwells also occasionally occur in hoards, where it can be difficult to distinguish between material hidden during a time of crisis (notably the Alemannic incursions of the third century) or votive offerings. Writing could clearly play an important part in ritual, as indicated by the writing equipment and inscribed vessels found in a votive deposit on a villa site in Bavaria. Inkwells retrieved from rivers could also be votive offerings, but that is impossible to ascertain. Funerary contexts offer one of the most fruitful avenues for research; this can take the form of a detailed analysis of the placement of writing equipment in graves, which shows considerable variability and does not always follow the practice indicated by the iconographic evidence, where individuals normally write

with their right hand, with the other equipment held under the left arm. On a more general level the inclusion of writing equipment in graves can be interpreted in terms of ‘etiquettes of consumption’ or ‘expressions of savoir-faire’ (Pearce 2013, 137, and 2015, 21).

Part III exploits various forms of funerary evidence to understand literate identities. Chapter 8 examined the roles writing equipment played in the self-fashioning of elite identities by a discussion of tombstones and Campanian wall paintings. Here, I am interested in the question of why and how writing equipment was depicted in these contexts. Where only the objects are shown on Campanian wall paintings, sometimes with money bags next to them, they appear to stand for the world of *negotium*, the legal and business affairs of men, sometimes possibly also with a votive function (Meyer 2009; Riz 1990). Both the money bags in Pompeii and the accounting scenes so popular in the Mosel region essentially reference economic competence and success. In the late imperial period, writing sets become emblems of high office, standing symbolically for the judiciary powers of magistrates and the authority of the emperor. Writing equipment can also be depicted with people; in some provincial examples it is not certain whether the individual holding writing equipment is the deceased or a servant, but in others, a scribe in attendance heightens the power and authority of the individual commemorated. Individuals shown with writing equipment are often officers in the army or members of the Roman administration, but there are also professional scribes as well as teachers and surveyors for whom literacy was an essential professional requirement. In most cases, depictions of writing equipment are strongly associated with men and also boys. There is considerable regional variation, not just in the frequency with which these images occur or their style but also in terms of the specific iconography. These differences between, for example, the Mosel region, Phrygia and Noricum probably represent local responses to classical models, of course always viewed in ways shaped by our own training and experience, which is fundamentally different to that of ancient viewers (Hales 2010, 233). While the people depicted may have been held in disdain by the City of Rome male elites that dominate our literary sources, it is clear that the ability to write was a mark of high status and a skill to be proud of in the eyes of the patrons who commissioned these monuments and of their assumed audience.

Chapters 9 to 11 deepened the discussion of the funerary evidence by considering gender, age and other aspects of elite identities expressed by the inclusion of writing equipment. While yielding some interesting results, it has to be acknowledged that these chapters have suffered from the paucity of modern osteological analysis. Attributions made on the basis of grave goods pose the obvious danger of circular arguments; throughout the text and tables the evidence for gender or age attributions has therefore been made explicit. In my

general discussion and approach, I have followed Pearce (2013) and others in highlighting the performative and representational elements of burial assemblages; the objects and the rites evoke the social practices through which both the mourners and the deceased expressed and occasionally challenged their identities. When dealing with gender, it is important to acknowledge that the literary and iconographic sources essentially reflect elite male gender ideologies. Amongst the Roman elite, educated women certainly existed, but they functioned within closely prescribed social rules. Lower down the social scale, women could work in specific roles that required literacy and numeracy, such as scribes or tradeswomen, and women from a range of backgrounds participated in the epistolary culture of the Roman Empire, whether they themselves could write or not. It is of course not possible to simply contrast this complex and nuanced picture with the 'reality' of the burial record, as burials themselves are social constructs. Nevertheless, analysis revealed a surprising number of female burials with writing equipment and such graves occur from the early first century, mainly in Italy and then also in the north-western provinces. It may be that this pattern reflects simply burial rites (i.e. the deposition of gendered artefacts and the likelihood of osteological analysis), but it may also point to the display of *otium* (leisure and literary pursuits) and education. In a few cases, such as the female doctor in Vindonissa or the grave from Brindisi with multiple writing sets, we may see professional identities. Similar ideas may be expressed in male graves, where many are further distinguished by symbols of male officialdom such as belts and crossbow brooches and by weapons, an outward expression of masculine ideals and duties. In this way writing is closely related to the management of the state and army, although we must acknowledge that this is most visible in those areas where the burial rite consists of clothed inhumations, notably in Hungary and adjacent areas, and in the later Roman period.

A life course approach helps us consider a range of identities in relation to biological and culturally constructed age, but again detailed analysis is hindered by the lack of osteological data. Age data are only available for very few adults, however that category is defined, and therefore Chapter 10 effectively concentrates on the education of children, mining the literary and iconographic evidence to explore at what ages children acquired key skills and how they were taught. Writing equipment was found in a number of graves that appear to be those of children or juveniles. Styli can occur in the graves of children as young as four or five years old, while inkwells and complete writing sets appear to be more commonly associated with slightly older children and juveniles. For both boys and girls, writing equipment placed into a grave may have been used in daily practice but it could also be viewed as a symbol of their, and their families', aspirations and status. Finally, systematic evaluation of the overall funerary assemblage identified the repeated association of writing equipment

in high-status graves with objects relating to bodily presentation and grooming as well as dining. Chapter 11 explored these assemblages for gender and age patterns, and in terms of the social and cultural practices they relate to. Thus, writing sets offer insights into ancient writing practice, both in terms of the range of objects used and by allowing us to identify possible specialists equipped with rare or multiple objects. Both writing sets and so-called game pieces, which may point either to appropriate leisure pursuits or business competence and numeracy, occur in the graves of women. The grooming equipment placed in graves varies by gender, although these patterns are unlikely to be exclusive, and there is an obvious danger of circular arguments where graves are not osteologically sexed. Writing equipment occurs in a number of doctors' graves, although sadly many are poorly recorded.

The data generated here cannot be used to estimate the number of literate individuals in a given society but reflect differential burial rites, as well as, of course, excavation and publication patterns. In general, in 'societies in which reading and writing skills are restricted, the social groups in which they are commonly concentrated are the elite and the professionally literate: scribes on the one hand, and teachers, doctors, lawyers, architects and various skilled craftspeople on the other' (Flemming 2007, 262). In the funerary record of the provinces, rather than seeing writing equipment simply as 'natives adopting Roman things', it may be more helpful to think about men and women of the local elite displaying their familiarity with high-status social practices and material culture. These individuals may well have been members of the municipal elite, some perhaps also serving in the military administration. Displaying a high degree of education and literary culture (*paideia*) was not about snobbery, but an important form of protection against imperial or official excess, as well as a means of expressing membership of the urban upper classes and social distance from the rest of the population. The literature on the topic is mainly about the Greek East and about the power of rhetoric (e.g. Brown 1992; Kaster 1988), but I see no reason why the presence of writing equipment in graves could not allude to the same concept.

FUTURE WORK

It is likely that many more inkwells will be recorded in years to come, and by the very nature of archaeological research, this was never intended to be a comprehensive catalogue. New data will significantly improve typochronological analysis in particular; I have noted subtle regional differences both in the depiction of inkwells and in their typologies, although that would not necessarily have been obvious to people in the past. Any patterns will become much clearer as more examples are recorded, especially from regions such as Spain, North Africa and Greece that are currently

very underrepresented. Examination in person of more examples should also generate a much better understanding of manufacturing methods and features such as aperture cover mechanisms. More broadly, it is hoped that future studies of ancient literacy engage closely with the material basis of writing through detailed and contextual artefact analysis. This could take the form of studies of selected sites, for example, Pompeii, where it should be possible to study tools of different materials and slightly different functions across a settlement. Better integration of osteological analysis is now common for Roman cemetery analysis, and this will contribute to a better understanding of age and gender patterns. Finally, it would be fruitful to analyse other forms of writing equipment, such as plain wax spatulae and styli, as too many current discussions about the materials of Roman literacy are still highly impressionistic and based on very limited site or regional studies. There can be little doubt that Roman society was shaped by the written word, even if modern discussions of the subject have rightfully highlighted the subtle gradations of the many literacies that existed across the Empire in more than 500 years. A key instrument of ancient writing, the metal inkwell, has not previously been studied in detail, but this book has shown that these small objects provide fascinating insights into ancient identities. They can be viewed as one of the physical manifestations of a new information technology that profoundly shaped society. Writing is both an individual act and a cultural practice, and an attempt was made in this book to focus both on embodied practice and on the context of use. Learning and education were important symbols of status, in particular in the self-representation of what we may call the 'sub-elite'. These are wealthy individuals and groups with a good knowledge of Roman cultural norms but below the stratum that dominates the literary sources from which so much of our previous knowledge has been drawn. Detailed archaeological investigation of an intriguing object type has therefore provided an opportunity to explore issues of ancient identities through the prism of the material culture of literacy.

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